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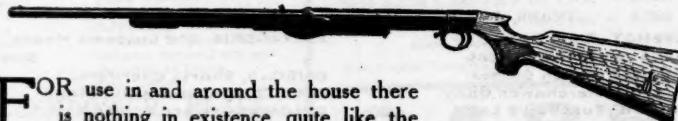
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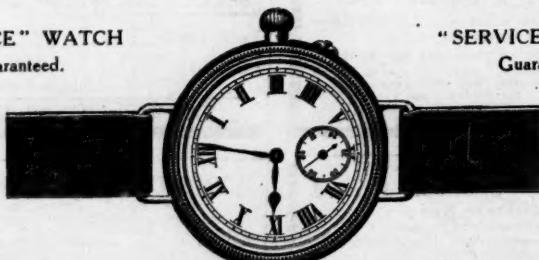
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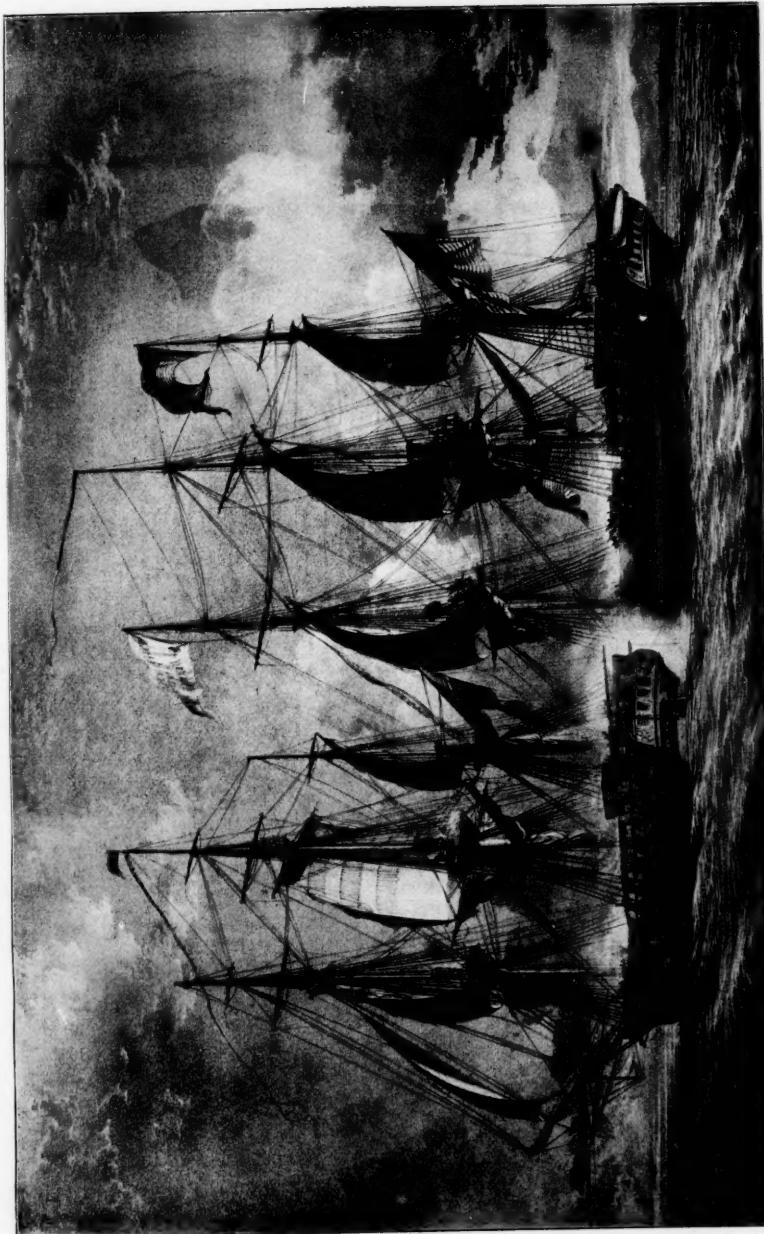
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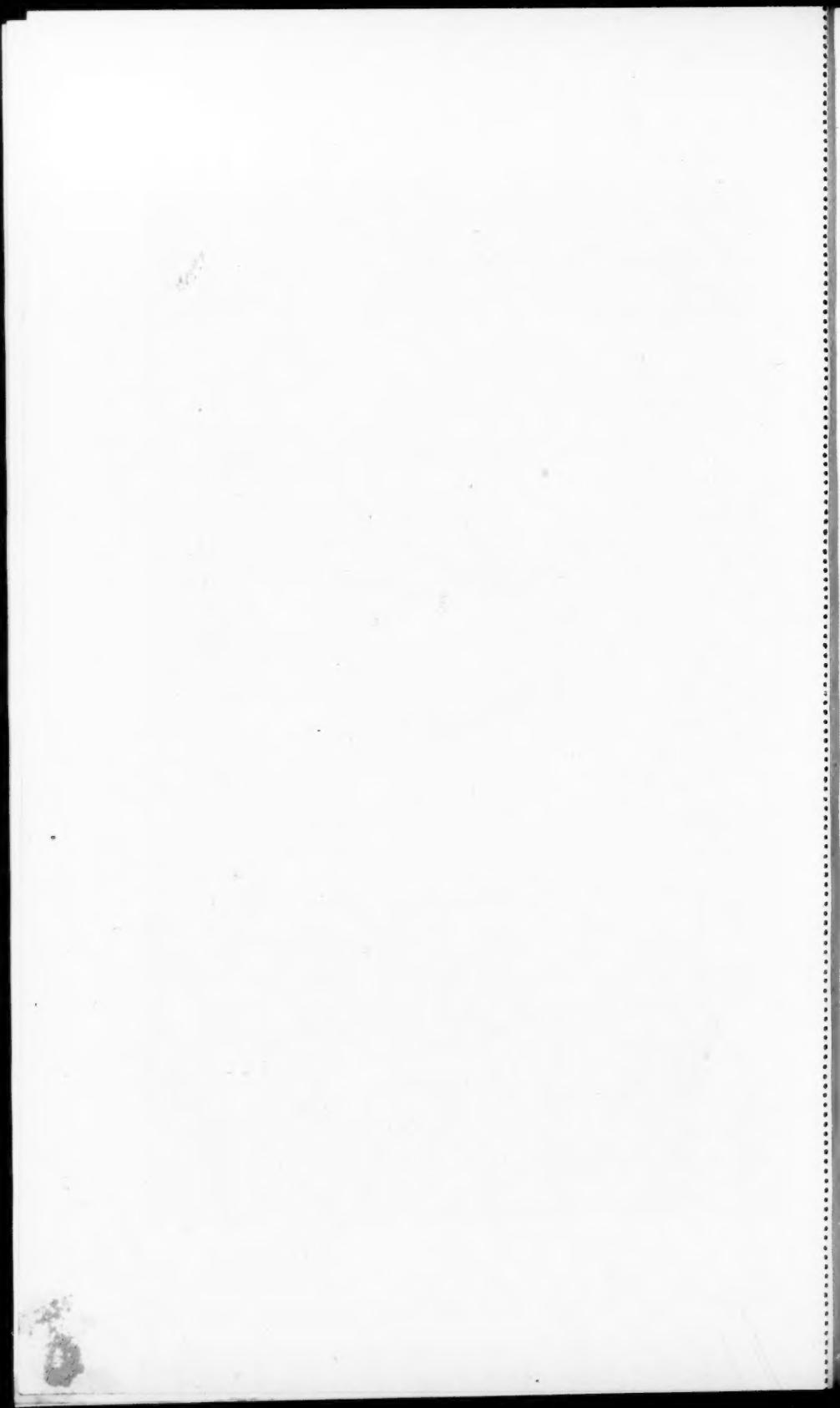
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The Representation of H.M.S. "SHANNON" commencing the Battle with the American Frigate "CHESAPEAKE," on June 1, 1813.

[From a picture designed by Captain R. H. King, R.N., in the Museum of the U.S. Institution.]

[See page 197]



ROYAL UNITED SERVICE INSTITUTION.

JUNE, 1913.

SECRETARY'S NOTES.

I.—VICE-PRESIDENTS.

Field-Marshal Sir H. E. Wood, V.C., G.C.B., G.C.M.G., has been appointed a Vice-President of the Institution, vice the late Field-Marshal Viscount Wolseley.

II.—OFFICERS JOINED.

The following officers joined the Institution during the month of May:—

Lieutenant D. W. Boyd, R.N.

Captain H. Fisher, D.S.O., Manchester Regiment.

Second-Lieutenant R. G. Roberts, 7th Dragoon Guards.

Captain S. G. Francis, D.S.O., West Yorkshire Regiment.

Lieutenant G. Tomes, Indian Army.

Up to the present date there has been a considerable falling off in new Members joining during the present year, and the Council hope that Members will do their best to induce officers to join the Institution, and attention is drawn to the pink slip enclosed in each copy of the JOURNAL.

III.—THE EDITORSHIP.

The Editorship of the JOURNAL will shortly become vacant, owing to the resignation of Major H. A. L. H. Wade, late R.A. Officers, who are members of the Institution and those eligible for membership, are qualified as candidates. Salary £250 per annum. A competent knowledge of French and German is essential. Applications with testimonials as to qualifications must be sent in by Monday, July 21st, 1913, to the Secretary of the Institution, from whom can be obtained by letter *only* all further information.

IV.—MEMORIAL TO LIEUT.-GENERAL SIR JOHN MOORE.

The following letter has been circulated by the Committee of the proposed Memorial, and the attention of members is drawn to it:—

“Although more than a century has gone by since Moore fell at the moment of victory on the field of Corunna, no memorial has yet been raised at Shorncliffe Camp to mark his association with that place.

“It was at Shorncliffe that Moore trained the famous Light Brigade, which afterwards, as the Light Division under Wellington, ‘were found to be soldiers unsurpassable, perhaps never equalled,’ a corps which produced a long list of notable men amongst whom were four who commanded armies, three of them being celebrated conquerors.

"Sir John Moore's distinguished services in many campaigns are too well known to require mention.

"As a trainer of troops England has never possessed his equal, and the brilliant author of 'The History of the British Army' has placed on record that 'No man, not Cromwell, nor Marlborough, nor Wellington has set so strong a mark for good upon the British Army as John Moore.'

"Moore's name is held sacred in our Army to this day, and the immortal verses of Charles Wolfe commemorating the burial of the heroes are known wherever the English language is spoken.

"We have reason to believe that we are acting in accordance with the wishes, not only of soldiers, but of our fellow countrymen at large in appealing for funds to raise at Shorncliffe a Memorial which shall remind generations to come of the services and example of this great soldier.

"It is hoped to erect a library which shall serve as a valhalla for the commanders and regiments of the Light Division, and, should funds permit, a statue of Moore overlooking the very ground on which he trained his troops.

"A military library, which is urgently required at Shorncliffe, would be a particularly appropriate form for a Memorial to Sir John Moore, who though he passed most of his service in the field, was, like other great commanders, a deep student of his profession.

"Field-Marshal His Royal Highness The Duke of Connaught and Strathearn, Colonel-in-Chief of the Rifle Brigade (the 95th Rifle Corps of the famous Light Brigade), has graciously consented to act as Chairman of the Committee which has given its services to carry out the project.

"It is hoped that His Royal Highness's personal interest in doing honour to the memory of Moore and his troops will secure a liberal response from the public so that the Memorial may be of a national and not a purely military character.

"Donations, however small, will be gladly received by the Honorary Secretary, Brigadier-General J. A. L. Haldane, C.B., D.S.O., Shorncliffe Camp; or by the bankers of the Fund, Messrs. Holt & Co., 3, Whitehall Place, London, S.W. Cheques should be marked 'Moore Memorial.'

V.—ADDITIONS TO THE MUSEUM.

(6566). The following prints in colour, published November 1, 1842, by W. Spooner, from the paintings by Michael Angelo Hayes:—

- (1) Grenadier Guards.
- (2) 42nd Royal Highlanders.
- (3) Regiments of Light Infantry.
- (4) 92nd Highlanders.
- (5) 16th Light Dragoons (Lancers).
- (6) 1st Royal Dragoons.
- (7) 2nd North British Dragoons (Scots Greys).
- (8) 12th Royal Lancers.
- (9) 10th Royal Hussars.
- (10) Regiments of the Line.
- (11) Royal Horse Artillery.
- (12) Royal (Foot) Artillery.
- (13) 3rd Light Dragoons.
- (14) 71st Highland Light Infantry.

(PURCHASED).

(6568). Double-barrelled rifle, the invention of General John Jacob, made by Swinburn & Son, 1860, and marked Jacob's Rifles. Barrel 23 inches in length, bore half-inch, rifling four grooves, sighted to 2,000 yards.—Given by Colonel P. H. Smith, late Devonshire Regiment.

(6570). Model of an improved Optical Telegraph or Semaphore, by Vice-Admiral the Hon. G. Elliot.

The semaphore, a mechanical device by which information or messages can be signalled to a distance, was invented in one of its forms by Richard Lovell Edgeworth in 1767.

A semaphore on the principle of the one illustrated by the model was introduced by Sir Home Popham in 1816, and was in use for transmitting messages over long distances until the adoption of the electric telegraph.

Semaphores are still in use in the Royal Navy, and in some ships of the mercantile marine.

(6571). A large Oil Painting depicting the arrival of H.M.S. "Vanguard" at Naples on September 22, 1798, commanded by Sir Horatio Nelson, K.B., who was congratulated on board his flagship by the King of Naples, Sir William Hamilton, K.B., and Emma, Lady Hamilton, on his victory over the French fleet at the Battle of the Nile. The picture was painted at Naples in 1798; the artist is unknown.—Bequeathed by the late Charles Dalton, Esq., F.R.G.S.

The attention of members is drawn to the Museum Purchase Fund.

VI.—MUSEUM PURCHASE FUND.

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VII.—LECTURES.

Members desiring to deliver lectures in the Theatre or contribute papers to the JOURNAL are requested to submit them for perusal of the Council through the Secretary. The Council specially hope that they may receive offers of lectures on Naval subjects.

PRINCIPAL ADDITIONS TO LIBRARY.

May, 1913.

Englisch-deutsches Taschenwörterbuch Zur Vorbereitung für Militärische Prüfungen. By G. von Loebell. 12mo. (Presented by the Author-ess). (Langenscheidtsche Verlagsbuch-handlung). Berlin-Schöneberg, 1913.

Military Report on the Arrangements for the Coronation Durbar, held at Delhi in December, 1911. Compiled and published under the orders of H. E. General Sir O'Moore Creagh, V.C., G.C.B., I.A., A.D.C., General Commander-in-Chief in India, by Major R. B. Graham, D.A.Q.M.G. Coronation Durbar. 4c. fol. Calcutta, 1913.

With the Bulgarian Staff. By Noel Buxton, M.P., Crown 8vo. 3s. 6d. Illustrated. (Smith, Elder & Co.). London, 1913.

The Struggle for Bread: A Reply to "The Great Illusion," and Enquiry into Economic Tendencies. By "A Rifleman." Crown 8vo. 5s. (John Lane). London, 1913.

A History of Cavalry from the Earliest Times, with Lessons for the Future. 2nd Edition. By Colonel George T. Denison. 8vo. 10s. 6d. (Presented by the Publishers) (Macmillan & Co., Ltd.). London, 1913.

Tableaux par Corps et par Batailles des Officiers tués et blessés pendant les Guerres de l'Empire, 1805-1815. By A. Martinien. 8vo. 16s. (Henri Charles-Lavaudelle). Paris, n.d.

Guerre de 1870-71. Publié sous la Direction, de la Section Historique de l'Etat-Major de l'Armée. Etat nominatif par Affaires et par Corps des Officiers tués ou blessés dans la Première Partie de la Campagne (du 25 Juillet au 29 Octobre). By A. Martinien. 8vo. 6s. (R. Chapelot). Paris, 1902.

1st King's Dragoon Guards—Extracts from the Regimental Records, Army Despatches, and other Papers connected with the History of the Regiment from its Formation in 1685 to 1912. By Captain I. O'Donnell. 8vo. Illustrated. (Presented by the Author). (William Clowes & Sons, Ltd.). London, 1913.

The War of Quito. By Pedro de Cieza de Leon, and Inca Documents. Translated and edited by Sir Clements R. Markham, Vice-President of the Hakluyt Society. (Vol. XXXI. Hakluyt Society, 2nd Series). 8vo. London, 1913.

The 85th, King's, Light Infantry. By "One of them." Edited by C. R. B. Barrett. 8vo. 42s. Illustrated. (Presented by the Author). (Spottiswoode & Co., Ltd.). London, 1913.

The Trafalgar Roll. By Colonel R. Holden Mackenzie. Crown 8vo. 5s. Illustrated. (George Allen & Co., Ltd.). London, 1913.

The Battlefields of Scotland, their Legend and Story. By T. C. F. Brotchie. 8vo. 5s. Illustrated. (T. C. & E. C. Jack). Edinburgh, 1913.

A Modern Pilgrim to Mecca. By A. J. B. Wavell. 8vo. 10s. 6d. Illustrated. (Constable & Co., Ltd.). London, 1913.

FRONTISPICE OF JOURNAL FOR MAY, 1913.

It should have been stated that the photograph of H.M.S. "New Zealand," which formed the frontispiece of last month's JOURNAL, was by Messrs. Stephen Cribb, of Southsea.

THE JOURNAL OF THE ROYAL UNITED SERVICE INSTITUTION.

VOL. LVII.

JUNE, 1913.

No. 424.

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WHAT IS THE INFLUENCE OF OVERSEA COMMERCE ON THE OPERATIONS OF WAR? HOW DID IT AFFECT OUR NAVAL POLICY IN THE PAST, AND HOW DOES IT IN THE PRESENT DAY?

By COMMANDER E. V. F. R. DUGMORE, R.N.

Motto :—“Appetitus rationi paret.”

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OPERATIONS OF WAR.

MANY conditions at the disposal of a belligerent, geographical, physical, economic, and so forth, having inherent value, are liable to be called into play in war, and may be made to serve or to dominate strategy, through a proper estimation of their worth and by skilful employment. Some conditions are utilized naturally and automatically: as, for example, the relative position of English bases, for concentration, or the precipices of Quebec, for protection. Disorder and disaffection amongst the populace of territory to be invaded, and the political situation externally—these, and a variety of matters influencing the conduct of war, are commonly dealt with in historical research. When, however, we come to study the influence of commerce, notwithstanding the notice it exacts as a provocative, or in its obvious effect in building up resources whence spring the sinews

of war, we find in literature a singular scarcity of material in the strategical consideration of the subject, although naval conflicts and commerce, separately chronicled, date back to 728 B.C., the early days of the Phœnicians. Even Mahan is reticent, though in his *Influence of Sea Power upon History* (page 8), he makes reference to the theme. "Before fleets are brought into contact," he says, "there are a number of questions to be decided, covering the whole plan of operations throughout the theatre of war. Among these are the proper function of the Navy in the war; its true objective; the point or points upon which it should be concentrated; . . . the military value of commerce destroying as a decisive or a secondary operation of war; the system upon which commerce-destroying can be most efficiently conducted, whether by scattered cruisers or by holding in force some vital centre through which commercial shipping must pass. . . ."

The main operations of naval war may be classified as (a) attacks on territory, (b) attacks on commerce, and (c) attacks on naval forces, or battle strategy.

The secondary operations, wholly or partially involved in main or in ulterior operations are: (i) eccentric territorial aggression, (ii) evasion, (iii) concentration and its prevention, (iv) "containing" (by blockade or otherwise), and (v) diversion. All warlike acts, as also any attempt to obtain command of the sea, may be said to fall within the category of these operations.

For our present purpose of determining its effect on these operations, trade may be divided into two elements: (1) the source, *i.e.*, territory; and (2) the transport, *i.e.*, mercantile shipping; and it is sufficient to bear this distinction in mind without heeding unnecessary details of its origin, and weight on national history, treated extensively in the world's literature. An appendix of a few of what may be termed "statistical landmarks" is inserted, however, containing chiefly matter of academic interest.

It is proposed to examine the campaigns of four representative periods, beginning with the Elizabethan Wars, exhibiting undeveloped sea strategy and invasion; followed by the Dutch Wars, with commerce and fleets as objectives, and land conquest neglected; the Seven Years' War, embracing most factors of warfare; and the French Revolutionary and Napoleonic Wars, aiming at the subjugation of a nation by invasion and the interruption of commerce, with battle strategy performing an important rôle.

In order to assess a value to the part taken by commerce it is necessary, for an analysis of the various factors, to recall the main features of these struggles; a brief narrative, including, perhaps, matter apparently irrelevant, is therefore unavoidable, and, indeed, the thesis would be incomplete without an insight into the contemporary war plans and incidents.

Colomb (*Naval Warfare*) points out that there was not, in the European Wars, any idea of attempting to win the

command of the sea before the end of the sixteenth century. The general method of conflict was what he names "cross-raiding," ravaging expeditions, in the nature of reprisals. He says there was not on the sea sufficient property of the enemy to make it an object of attack. "Although sea-borne commerce was growing, it was not yet of a character or extent sufficiently important on any side to render its suppression a serious injury to the nation carrying it on. An hour or two's burning of a coast town probably offered greater prizes to the descending foe, and wrought greater distress to the nation attacked, than weeks or months of preying on the small and occasional cargoes which were found to be actually at sea."

PART I. ELIZABETHAN WARS.

So far as England was concerned, the question of sea-borne commerce did not come into material notice until the time of Elizabeth. Early in her reign marauders were at work in the Channel; and French and Dutch privateers were the first to inaugurate raids on Spain's rich trade. Dating from 1474, her prosperity had been greatly on the increase. New discoveries had converted the land trade with India into a sea trade, which had made the nations of the Peninsula the carriers of Europe, and, in combination with the Atlantic trade, must have rendered Spain particularly vulnerable to maritime adversaries. Under Elizabeth, English commerce was also growing by leaps and bounds, and it is significant of the prevailing interest in nautical affairs of those days that certain fasts were made imperative in order to stimulate the fishing industry and thereby provide the means of obtaining men fitted for the Navy and the merchant service. The Levant trade was a flourishing one; commercial undertakings to Africa and America were common; while the questionable excursions of Hawkins, Drake, Frobisher, and others, were developing our resources and damaging Spain's. As a further indication of the attention paid to commerce, it is interesting to note that Elizabeth rescinded the navigation laws, prohibiting exports and imports in other than English bottoms, as productive of national jealousies and dissensions, and imposed instead a slight tax, the result being a decided expansion. Notwithstanding, however, the concern manifested by the policy of her reign, and the accompanying progress, no instance is evident, until after the Armada, of trade being used as a *strategical* agent. The expeditions of the period were simple, straightforward attacks levelled at our own enrichment and the impoverishment of Spain, with no wish whatever to lure squadrons away to the scenes of operations, while the privateering was of a semi-piratical nature with no great discrimination regarding nationality. But, as is fully explained in an extract from the Historians' History (vol. XIX., page 458), commerce was to exercise the greatest influence in another direction during that crisis.

"A glance at the history of England during the reign of Queen Elizabeth will suffice to show how necessary this mercantile spirit was, not only for national prosperity, but even for very existence. Spain, which had taken the lead in maritime discovery, and been enriched with the treasure of America as her reward, was enabled in consequence to fit out an Armada which, according to human calculation, was justly termed the Invincible. Had England remained indifferent to her mercantile advantages as an island, the utmost she could have done in such a crisis would have been to abide the uncertain issue of an invasion, by which she would have been thrown back for a century at least in progress, even if she had been finally victorious. The former sovereigns had been obliged in their difficulties to apply for shipping to such foreign ports as Genoa, Dantzic, Hamburg, and Venice, but in the present case such a resource would have been useless. Happily, however, her commerce had already created not only a numerous and well-planned Navy, but skilful commanders; and thus, when the battle was confined to the ocean, the Spaniards were confronted by men as inured to naval conflict as themselves."

In 1567 Hawkins, who had repaired with six ships to St. Juan de Ulloa, for illicit traffic, was attacked there by a Spanish fleet of 12 ships. From this event Colomb dates the beginning of attack and defence of commerce as a regular element in war. "All the world," he says (*Naval Warfare*, page 7), "seems to have become alive to two things—the enormous value of sea-borne commerce to the countries which carried it on, and the tremendous risks attending its prosecution in war on the one hand, as well as the great advantages arising from its attack on the other." This allusion is pertinent only to the *guerre de course*, for from that time until the end of the First Dutch War no decided attempt—unless we except the case of Essex, considered later—appears to have been made to alter the character of warfare to battle strategy in a struggle for the sea command, to obviate such assaults. Descents on territory were not uncommon, but these, in accordance with the spirit of the age, aimed at booty rather than an ulterior object. Drake's capture, in 1572, of 200 small vessels in the Gulf of Mexico, his plundering of Nombre de Dios, and interception of a mule caravan loaded with gold and silver are fair samples. It is true that this enterprise was in part a private venture, but when England, as an ally of Holland, engaged in open war with Philip, similar acts continued, with such incidents as the burning of Santiago, the plundering of Santo Domingo and Cartegena, and the demolition of forts on the Florida coast, with an interlude in Drake's destruction of some ships at Cadiz, intended for the Armada.

With this great invasive movement we need not concern ourselves; it is only germane to the subject, indirectly, in its conception as a palliative to Spain's pride, wounded by our

commercial depredations; and in the indication of the effect of our policy, which was instrumental in providing ships—including many merchant vessels—and men to meet the danger. After its passing, assaults on commerce were continuous for the next ten years. England took advantage of the temporary command of the sea obtained at the famous fight to send a combined expedition under Drake to the Peninsula, and to send Hawkins and Frobisher to the Spanish coast and the Western Islands against trade. But the enemy's naval power speedily recovered, and we are told that at one period he had as many as 20 sail at the West Indies, and 24 at the Western Islands; whereas, at the end of Elizabeth's reign we are only credited with 40 men-of-war in all. Numerically, then, England was not for long a match for her opponent, who was potentially mistress of the sea. About 1590-1, it was the Spanish King's intention to bring our fleet to battle, but the idea never materialized, Philip withdrawing his fleet and forbidding the departure of his trade from the West Indies, while our ships lay across the route and left the Channel open.

In 1593 we were driven from the Western Islands, with nothing of importance accomplished. The year 1594 saw more modern methods in Frobisher's watch, or open blockade, of Brest, which was harbouring some Spanish ships; in addition, it saw a resumption of old customs in Drake's and Hawkins' filibustering excursion to the West Indies and Panama—in which they met their deaths; and also a cross-raid on Mount's Bay, replied to in the following year by our holding Cadiz to ransom.

In 1597 another invasion was on the *tapis*, an assembly taking place at Ferrol, while the protection of the shipping from the Western Islands was relinquished. Essex, with a formidable fleet, after appearing off Ferrol, proceeded to the Islands, with what object is not clear; but, as Columb points out, he left the Spaniards free to follow him or to carry out their intention of establishing a temporary base at Falmouth. A gale defeated this design, and Essex returned with some prizes after a short absence. It is so difficult otherwise to account for this hazardous cruise, that one cannot help suspecting him of having been actuated by a gleam of scientific strategy, with the object of completing the destruction of the sea forces initiated by the attack on the ships at Cadiz. Essex, with battle in view, might have been endeavouring to entice the Ferrol fleet in the direction of the Western Islands by the menace against trade. What other reason had he for showing himself off the port? In the absence of information as to the general dispositions and the possibility of favourable junctions, the affair is conjectural; but it demonstrates a use to which the element of commerce might have been put in the peculiar circumstances then prevailing.

The following years were moderately quiet, except for raids on the Canaries and Porto Rico, and another invasion scare in 1599, met by the commissioning of a large fleet which was paid off with the passing of the danger. Our commerce, although stimulated by the incorporation of the East India Company in 1600, was still, towards the end of the reign, below Spain's in value and volume. This disparity in trade was a factor gradually asserting itself more and more—since the Armada days, and it seems now to have dominated the policy of England, which had become in effect a "containing" process, by keeping hostile squadrons so busy in trade defence as to eliminate the risk of territorial aggression. With this object ships were stationed at the Western Islands. When they were driven off, or when the Spanish trade, following an evasive course, avoided the Islands, we placed our squadrons along the enemy's coast, whence he was unsuccessful in chasing them away. Upon the abolition of cross-raiding (to be renewed in the Seven Years' War, but with ulterior motive), this appears to be a method suitable to the conditions, taking into consideration Spain's failure to try conclusions in battle; but, in our commercial and, numerically, our naval inferiority, the counterpart has not since existed. The importance to Spain of guarding her shipping, conjointly with her infirmity of purpose in not taking the more decisive course to secure its safety by annihilating our fleet, had become an integral part of the position; we were able, therefore, to disregard the danger of coastal attack as not serious enough to be considered in the dispositions. We do not appear to have provided for the enemy's evasion of our squadrons, as is evident from the landing of four thousand troops at Kinsale in support of Earl Tyrone's insurgents in 1601, contenting ourselves with the despatch of a force under Sir Richard Levison to interrupt communications.

It is improbable that oversea commerce ever played a more prominent part in warfare than it did in Elizabeth's reign, being, as one would judge, the governing factor in the policy adopted. Later, the command of the sea was accepted as the essential objective; but even if this had been recognized at this epoch, it is not easy to conceive how England, situated as she was, could have avoided employing trade as the means to that end against an enemy disinclined to fight except in its defence.

PART II. THE DUTCH WARS.

First Dutch War.

The First Dutch War was brought on, in 1652, partly through the omission of our opponents to pay the license dues exacted from the North Sea fishing industry. Its outbreak was marked by Blake, with 68 sail, proceeding to the Shetlands to intercept commerce, after destroying the fisheries; and the

frustration by a gale of the attempt of Tromp, in command of 79 sail, to bring him to a fleet action.

The next event was the despatch of Sir George Ayscue, with a force of 40 sail, to the mouth of the Channel, to raid homeward-bound Dutch shipping and defend our own. This was followed by an indecisive engagement to the south of Plymouth with de Ruyter's 30 sail, escorting an outward convoy, which escaped.

So far the enemy, with a prescience of future methods, went about the business of protecting his shipping in a workmanlike manner by at once endeavouring to draw our teeth. Indeed, his first objective had been Ayscue's division in the Downs where, before being brought up to full strength, it was anchored on the declaration of war.

The commercial element had become very conspicuous, but although both Powers had a great sea-borne trade, of rapid growth during the preceding peaceful years, the Dutch had prospered the more; for, already the chief ocean carriers, they had obtained control of the colonial traffic through a lax compliance with the navigation acts in the reign of James I. In 1614 England is said to have owned a thousand merchant vessels; at the period of hostilities the number was presumably considerably larger, but not equal to the enemy's, who, according to the Venetian ambassador Sagredo, residing then at Amsterdam, acknowledged the loss of 1,122 ships of both services during the war. (Naval Warfare, page 42, gives the number of prizes claimed as 1,700). Mahan (Naval Strategy, page 67 et seq.), tells us that before Cromwell's Government:

"The English Navy was seen in the Mediterranean only rarely and exceptionally. Merchant vessels trading there were expected to look out for themselves. What is known to us as the convoy system, though practised to some extent in the narrow seas and in the Atlantic traffic with France and Spain, had not been extended to the Mediterranean. . . . The Mediterranean trade of England had been among the lesser of her commercial interests, and here also the Dutch had been supplanting her, both in merchant and naval vessels. . . . The Commonwealth changed all this. To an extent never before known the State charged itself systematically with the protection of commerce by the Navy."

Incidentally, under the Commonwealth, families of pretension and long-standing began to direct their attention to commerce, and such pursuits became more reputable than hitherto. On the other hand, shipping had suffered considerably at the hands of Prince Rupert, who, with a fleet loyal to the monarchy, based on Kinsale and the Tagus, swept the Channel and conducted a piratical campaign in the Mediterranean and the West Indies.

While, then, the hostile merchantmen outnumbered ours, the commerce of England was not a factor to be disregarded

as in Elizabeth's days. It affected our policy in the Mediterranean, where, when war broke out, we had a fairly strong force, though somewhat inferior to the enemy's fleet in that sea. This disparity, balancing a slight superiority of England in home waters, made the Navies substantially equal numerically. Our presence in the Mediterranean was not, however, of long duration; for, thanks to the dispersion of our fleet—the Levant division being on convoy duty—it was defeated in detail off Elba and Leghorn respectively in the first year, and driven back to England.

Colomb (*Naval Warfare*) says the preliminary Dutch attacks were merely the results of meetings which took place in the course of trade assault and defence. The two operations—this and battle strategy—were certainly coincident; but, considering the foregoing description of events and intentions, and furthermore, that de Ruyter would have followed Ayscue into Plymouth Sound after the battle in that region had the weather permitted (*Naval Warfare*, pages 35-6), it would seem that the enemy's strategy was rather the more advanced. He was, in fact, with a recognition of principles, employing trade—convoys under fleet escort, or unprotected shipping—as the bait for battle; with a comparatively small force "containing" a larger one in the Channel, he had the bulk of his fleet in the north opposed to the smaller main body of the English. The effect, after the first phase, was practically the abandonment of our assaults in favour of a concentration off the Thames, where Blake's fleet was joined by Ayscue with 16 ships. The action which ensued in September at the Kentish Knock is corroborative of the preceding impression of Dutch policy, for, far from showing any desire to avoid an engagement, de Witt, albeit weaker, deliberately brought it on.

After this battle there was a temporary reversion to old methods in Blake's redistribution for the destruction of trade, culminating in his defeat, in November, 1652, by a fleet of 73 sail under Tromp, convoying 300 merchantmen. Learning wisdom, we speedily resorted to methods which would prevail in the same circumstances to-day. Having obtained revenge in the discomfiture of Tromp off Portland on his return from the Atlantic in February, 1653, we next collected 105 sail in the southern section of the North Sea. This fleet did not prevent Tromp again leaving the Texel with a convoy for the Shetland route; moreover, the completeness of our concentration and the determination to leave oversea commerce alone for more important quarry is also illustrated by the safe arrival of the Dutch homeward-bound convoy in May without sighting any hostile vessels. The succeeding events were the battle of Nieuport on June 3rd, when Monk, with 95 ships, beat Tromp's 98; and the blockade, by a force of 106 sail, of Holland with the object of preventing a junction between Tromp's main body from the South Zeeland ports and de Witt's 27 sail from the

Texel. Late in July Tromp sailed, succeeding, after a brush, in freeing de Witt's exit, and brought about the general engagement of August 1st, in which the Dutch were again worsted.

Henceforth our opponents had to content themselves with minor convoy business, the cause, by the way, of their exposure to a gale which created great havoc—an illustration, peculiar to sailing-ship days, of the influence which trade might exert in subjecting a country's fighting force to navigational and physical risks for its sake. They were beaten. At the end of 18 months we had put a stop to their trade, admitting on our side a loss of only 400 merchantmen; while the Dutch acknowledge reduction to greater straits by this short campaign than by 80 years of land war against Spain.

Our rivals started the war on sound principles of battle strategy, but they failed to divorce it entirely from trade protection; they did not know quite when to leave it alone after it had fulfilled the duty of bringing fleets in contact. If, after Blake's defeat in November, they had employed the temporary control of the Channel to effect a concentration, and left the convoy to look after itself, they would not have suffered the reverse in the following February; and, by preventing the English concentration, they might have destroyed our Navy in detail. England's policy, on the other hand, after the initial mistakes—if mistakes they can be called in view of the meetings that resulted—aimed at the fighting forces, and, receiving the aid of the commercial element in the deleterious influence it had on the enemy, was finally successful. Had commerce been a negligible quantity, the belligerents would have been obliged to seek some other form of diversion, such as raids on territory, to secure encounters on advantageous terms. As it was England, with an excellent geographical position, discovered by experience when to cease waging a war on commerce, as it proved inimical to concentration, while Holland could not bring herself totally to disregard its defence. In this connection it is noteworthy that the campaign did not wholly interrupt the intercourse of the Dutch with the English colonies, which sets one wondering whether England purposely encouraged the continuance of the traffic as an extra inducement for diversion.

In a contemporary opinion, that of the Ambassador Sagredo, the Dutch inferiority arose from three causes: "That the English ships were of greater bulk; the English cannon were of brass, and of larger calibre; and the number of prizes made by the English at the commencement crippled the maritime resources of their enemies." (Historians' History, vol. XX., page 149). The italicised passage may perhaps present in another aspect the key of our policy, which might then be enunciated in these terms: first cripple the enemy by attacking his chief resources, oversea commerce and fisheries, so that he

will be unable to recover from subsequent blows; then concentrate and destroy his Navy.

As a means of rendering him harmless *after* hostilities are closed this would be sound, as the war would thus be prolonged for the purpose of gradually sapping the enemy's strength; but otherwise it seems like putting the cart before the horse. Whichever the correct conclusion, whether attacks on trade were aimed at resources primarily, or as diversions, the influence of commerce was tremendous and practically governed the conduct of the war.

The Second Dutch War.

At the outbreak of this war in 1665, it appears as if our opponents had profited more by the lessons of the late conflict than we had; for, having made up their minds to pay no heed to commerce protection, they stopped the fisheries and prohibited the sailing of merchant ships, under pain of confiscation, in order that, being free from responsibility, they could devote all their energies to sharp and decisive battle strategy.¹

England, on the other hand, was unable to resist the temptations offered by the homeward-bound trade which had not come under the prohibition, and by vessels disobeying it; or maybe she was tied—indiscriminately it would seem in view of the knowledge we presumably had of Dutch intentions—to the earlier method of making the attacks subserve battle strategy. Although these excursions did not take our forces far afield they were the cause, as we shall see, of our permitting a concentration which might have been extremely detrimental.

The first important act was the appearance of the Duke of York, with 109 sail, off the Texel to prevent the junction of the Dutch Squadrons on emerging from their harbours. Having taken some merchantmen, this great fleet was driven away to Harwich by a gale. The enemy then, unmolested, assembled 103 men of war, captured a few traders, and made for the English coast. On June 3rd the fleets met at the battle of Lowestoft, whence our opponents retreated to the Texel. So far we were the victims of circumstance, and could only blame the weather and a certain unreadiness in our ships for the failure to prevent the hostile concentration. Neither do we appear to have forsaken the new principles in sending a large fleet, 70 sail, under Sandwich, which had refitted after the last engagement, to intercept de Ruyter's squadron of about 12 ships returning from the West Indies; but when, this manœuvre having failed, Sandwich deliberately divided his force by despatching Sir Thomas Tyddiman with 14 ships to capture a homeward convoy then sheltering at Bergen, while he stationed himself at the Shetlands for the interception of commerce, he

¹ See, however, footnote to Pepys' Diary, vol. II., page 205, which ascribes this step to the exigencies of manning the fleet.

was playing into the hands of his adversaries. It was as if the Dutch, seeking for a means of diversion, had had it absolutely thrust upon them, the Bergen convoy being the snare which enticed Tyddiman, while the north-about trade acted in a similar capacity for the bulk of the English fleet. It followed that the Dutch, aiming at a piecemeal demolition, pursued the nearer division—Tyddiman's, whose mission had failed. This example of trade effect is not changed by the facts that the enemy were unsuccessful in finding Tyddiman, or that they were scattered by a violent gale. Had it not been for this eventuality there was nothing in commerce defence, which they had foresworn, or in the fear of territorial attack, to prevent the fleet going any reasonable distance in search of the main body. It was a notable case of diversion, but it is doubtful whether we are justified in considering the strategy practised on this occasion as representative of our policy. It is not improbable that Sandwich may have intended being off the coast in time to prevent concentration, but that he misjudged the period of refit after the enemy's repulse off Lowestoft, and meanwhile preferred the sea-room in the north to the dangers of a blockade. As it was, he arrived on the scene after the gale and secured some prizes.

The Plague of London next intervened, and for a time, when our Navy was more or less inert, the Dutch had a fairly free hand; after a sixteen days' blockade of the Thames they withdrew for the winter. The remainder of the war, so far as our problem is concerned, consisted in direct attacks on shipping in the neighbourhood of Holland, after driving our opponents into their ports. The captures then made must have been largely instrumental in bringing about the Peace of Breda, which was ratified after the famous Medway raid, in July, 1667.

There are two further noteworthy particulars illustrative of our policy in the latter part of the campaign, *viz.*, the precautions required by Holland's alliance with France early in 1666, and our *guerre de course*. The former, comprising preparations indicating a defensive course, unlikely to have been of long duration had the occasion arisen, is quoted from the *Life of Penn*, vol. II., in *Naval Warfare*, page 59.

"An immediate convoy to Gottenberg to bring home our merchant ships, another to guard the merchant fleet to the Mediterranean, and to bring home the ships at Leghorn; winter guards for the narrow seas to secure the trade between Newcastle and London, a few ships in the Downs, and the 'chief station at Portsmouth, which may require a good strength, since no man knows what either Dutch or French may attempt for passing the Channel for a conjunction,' a guard for 'securing the trade at the Land's End and Soundings, which, if the French lie about Brest (whither they are gone), may require good ships.'"

The misplaced economy dictating the *guerre de course*, which preceded, and was primarily responsible for, the Medway

raid, was an echo of the policy prevailing during the peace. Here are extracts from Pepys' Diary giving an idea of the situation; and we know, in confirmation, that at the commencement of the Second War our fleet was sent to sea in an unready state.

"July 31st, 1660.—To White Hall, where my Lord (Sandwich) and the principal officers met, and had a great discourse upon raising of money for the Navy, which is in a very sad condition, and money must be raised for it. . . I back to the Admiralty, and there was doing things in order to the calculating of the debts of the Navy. . . ."

"June 28th, 1662.—Great talk there is of a fear of a war with the Dutch; and we have order to pitch upon 20 ships to be forthwith set out; but I hope it is but a scare-crow to the world, to let them see that we can be ready for them; though, God knows! the King is not able to set out five ships at this present without great difficulty, we neither having money, credit, nor stores."

In Campbell's Lives of the Admirals we find the opinion :

"That as the Dutch were chiefly supported by trade, as the supply of their Navy depended upon trade, and, as experience showed, nothing provoked the people so much as injuring their trade, his Majesty should therefore apply himself to this, which would effectually humble them, at the same time that it would less exhaust the English than fitting out such mighty fleets as had hitherto kept the sea every summer. . . Upon these motives the King took a fatal resolution of laying up his great ships and keeping only a few frigates on the cruise."

In its relation to commerce, this war may be shortly summarized as follows:—It originated through commercial jealousy and the desire for an expansion of English trade; it was preceded by conflicts between trading companies and consequent minor operations on the West Coast of Africa and in the West Indies, which had no strategic effect; none of the big engagements were brought on directly through acts in connection with commerce, though in one case a hostile concentration occurred through its agency; and, finally, the commercial element prompted a *guerre de course*, and the laying up of capital ships before the conclusion of the campaign.

The Third Dutch War.

Of this war small mention is necessary. The principal features were: the Dutch prohibition of their sea-borne commerce, as in the last war; the battle of Southwold Bay, followed by our blockade of the enemy's coast and the interception there of homeward-bound shipping; and, after the winter truce, the mutual concentration, early in 1673, with two fleet actions, and a second blockade which placed the returning Dutch East India-men in a precarious position; and, in conclusion, the battle of August 10th, 1673.

During the war, Dutch privateers were at work; and we are told that the loss of merchant ships on both sides was severe, the English being the greater sufferers because they had now become the possessors of the larger number. There is nothing, however, to show that oversea commerce was utilized in any way as an aid to operations; its attack and defence were only such as could be undertaken without interference with major strategy.

PART III. THE SEVEN YEARS' WAR.

War was not formally opened until May, 1756; but the belligerents had not waited for the declaration to conduct anterior operations, including a rather lame attack by Boscawen, off the St. Lawrence, upon a large squadron escorting French troops to Canada as a counter-move to General Braddock's American expedition; an onslaught on commerce by Hawke between Ushant and Finisterre, resulting in the capture of 300 merchantmen in six months; and the French assault on Minorca in May, directed at diverting us from the Channel for the initial invasion. Hawke's raids, occurring as they did so long before the actual commencement of the campaign, are interesting as showing a survival of the old plan of striking at a nation's resources while not yet prepared to proceed to extremes, a position very unlikely to recur to-day. There was a deal of indecision in the formulation of Hawke's instructions. The Government had first thought of taking the French East and West Indian convoys, but they contented themselves with ordering, in July, an attack only on ships of the line. Next month the order was extended to include privateers and merchant vessels as well as men-of-war; and in September similar instructions were issued to the fleets generally.

At this time it looked as if the French were also intent on commerce destruction, as they were known to be dividing their fleet into small bodies; later, however, it became apparent that this distribution formed part of an invasion scheme.

At the outset, a subsidiary effect of oversea trade is indicated in the embarrassment caused by the shortage of ships in commission. This was largely attributable to the claims of merchant ships during peace, which accentuated the usual Manning dilemma, and, combined with our solicitude for the safety of shipping near home, entailed weakness in the Mediterranean; and to the fall of Minorca, which the tardy arrival of Byng and his ten battleships—manned with difficulty—was powerless to save.

The year 1756 saw the coalition of France, Austria, Russia, Sweden, and Poland, against Frederick the Great of Prussia, in whose interest England played an extremely important part in providing troops and money, in creating distractions for the Army of France, and in confusing her strategy by threats and divertive raids on her coast. These movements we were enabled

to undertake by virtue of a marked naval superiority, having 130 ships of the line, large and small, to the enemy's 63. They were not all, of course, in commission, and there were probably some non-effectives included in the list; moreover, there were many demands which we were unable to meet, such, for instance, as Frederick's for a Baltic fleet, in consequence of the large number required to carry out Pitt's policy in Canada, and the uncertainty of our rival's intentions. It is presumably this maritime inferiority which is accountable for a somewhat unusual indifference to the commercial element in France's strategy; and the false premises on which her fore-doomed methods now took shape are perhaps excusable, especially so in view of the increasing poverty occasioned by the commercial blockade at this time proclaimed by England. France must have realized the futility of embarking on a *guerre de course* as a means of exacting terms, and also the impossibility of obtaining a prolonged command of the sea. She first formulated a plan of attack on England, partly with the object of masking the transport of reinforcements to Canada. While this menace gave rise to alarm across the Channel, it proved insignificant until later, when, goaded by our raids on coast and shipping, and by our success in America, she gave her mind to a second, and ultimately, with Spain's co-operation, a third project of invasion, aiming always at the avoidance of battle at sea.

Meanwhile, after our first dispositions, America became the ulterior object of the campaign so far as England was concerned. Conjointly with commerce destruction and an imperfect blockade, which permitted the departure of D'Aché's squadron for the East Indies and the escape of a force for Louisburg, our activity prior to the memorable year 1759 is shown by the following events:—

1757. A half-hearted attack on Rochefort in September.—Loudon's fruitless expedition against Louisburg.—The Mediterranean squadron, now strengthened, was operating in connection with trade and for the stoppage of reinforcements for Louisburg; it engaged in a small but successful fight in March, 1758.

1758. Boscawen, with an expeditionary force and 23 battleships, besides cruisers, took Louisburg, "the key of Canada," and destroyed the greater part of the 20 battleships composing the French North American fleet.—Holmes, in command of a small division, made a demonstration in the Ems against military supplies.—Hawke, in Basque Roads, destroyed a military convoy destined for America, in April.—Our capture of Senegal and Goree, on the West Coast of Africa: probably an extension of commerce destruction.—Anson's partial demolition of St. Malo and its shipping, in June. Although this manœuvre was intended primarily as a continuation of Pitt's Continental diversionary scheme, it had, or might have had, a further two-fold function: first, in the interests of trade, St. Malo being a great

privateer centre; secondly, as a lure to tempt the Brest fleet to sea. Anson, who had left the office of First Lord of the Admiralty for this expedition, and who commanded 22 battleships, hoped for the general engagement which might ensue from this and later from the Cherbourg raid, but an epidemic imported from Louisburg kept the enemy in harbour.—In August, Howe demolished the works of Cherbourg, "that most galling thorn in the side of British commerce" (Cambridge Modern History, vol. XIII., page 342b); and this was followed by the embarkation fiasco of St. Cas.—In this year we were also conducting the land operations in America; and our vigilance in the maintenance of the commercial blockade was rewarded by the capture of 176 neutrals, chiefly carrying produce from the French West Indies.

The year 1759 was that marked for the consummation of the French plan. In the early months, at Havre and adjacent places, were collected 50,000 troops, to be transported in flat boats and small craft. At Morbihan and Dunkirk also there were smaller bodies of troops destined for the Clyde and Ireland respectively; and at Ostend it was intended to embark a force, with London as its goal. Conflans had upwards of 22 battleships at Brest, watched by Hawke, who, with his 25 battleships and 16 frigates, was also responsible for Morbihan and Rochefort. Twelve ships under the command of Boys watched Thurot at Dunkirk, while Brett had another squadron of eight sail in the Downs to support Boys or guard the exits of Havre and adjacent ports. De la Clue had 12 battleships and three frigates at Toulon, and for this contingent, as well as for trade protection in the Mediterranean, Boscawen, whose fleet consisted of 15 battleships, was answerable. Our preparations at home also further included a military force at the Isle of Wight as a counter-threat. At the West Indies the French had nine battleships, commanded by Bompard.

In July, Rodney, with a light squadron and some bombs, met with considerable success in a bombardment of Havre and its flotilla.

The primary aim of the enemy was the junction of the Toulon and Brest fleets off the latter port, with the object of concentrating for the passage of the expeditions; and, in August, we find De la Clue taking advantage of Boscawen's refitting at Gibraltar to leave his headquarters and pass through the Straits, shaping a course for the north in the belief that he was unobserved. His opponent was, however, in hot pursuit, and brought him to successful action off Cape St. Vincent, the survivors of the French force escaping to Cadiz, and eventually making their way back to Toulon. By this battle the danger of invasion was greatly minimized; but the enemy still clung to the plan of landing in the north, and, no doubt with this idea, Thurot, in October, eluding the Dunkirk blockaders, made for Bergen, where he remained till next year, and was eventually, after landing at Carrickfergus, disposed of by Elliot's

squadron. In November, while Hawke was taking refuge from the weather in Torbay, Bompard arrived at Brest; and as soon as some of his men had been transferred to Conflan's fleet, the latter, consisting of 21 battleships and five frigates, sailed, and was shortly after reduced to impotence at the battle of Quiberon Bay, just as Saunders was returning from the taking of Quebec.

In spite of the collapse of the invasion scheme which followed this famous action, and the loss of the command of the sea which now rendered the fall of French power in Canada a mere matter of time, the war was by no means over. The next phase was the annihilation of our rival's commerce, by which we sought to destroy her credit. While we continued to blockade the remnants of her Navy, it was also necessary to provide for the defence of shipping against the ever-growing hordes of privateers, whose increase—an interesting by-product of our domination—is attributed to the disappearance of French commerce and the resulting enterprise of those who were thus thrown out of more peaceful employment. That their operations were lucrative is shown by the number of their captures, increasing from 240 in 1759 to 812 in 1761, and reaching a total of 2,500 in the space of four years. Meanwhile, despite our losses, English trade was rapidly expanding: in 1761 we had no less than 8,000 merchantmen. Doubtless we should have been equal to combating the privateer evil with more complete success, but such an organization as this necessitated would have seriously hampered operations further afield. As it was, while facing the minor trouble with equanimity, we did not allow our attention to be distracted elsewhere.

This year also witnessed the fall of Quebec, where the Navy played such an important part, and the taking of Guadeloupe. Instead of this island, Martinique had been the intended objective, but Guadeloupe was found to be the easier proposition. Its seizure was essentially an extension of the system of diversion, but from a commercial standpoint its value is obvious.

In the East Indies, a succession of engagements with Pocock, combined with a scarcity of refitting stores, forced the squadron under D'Aché to withdraw, and brought about the decline of the French dominion in India.

Next year (1760), saw a revival of our opponent's Navy. The contemporary English battleship force in commission was 120, including the smaller, or intermediate, classes; a sufficient indication of our multitudinous obligations. The chief event was our acquisition of Montreal. A powerful expeditionary force was also formed which acted as an effective diversion in favour of Frederick's campaign, threatening Belleisle and the French coast, and also, in turn, Mauritius and India. Belleisle actually capitulated to it in June, 1761.

In 1761, England became involved with Spain, partly through questions arising from the Newfoundland fisheries, the log-cutting industry in Honduras, and our arbitrary

proceedings against neutral shipping. In December, stimulated by the coming of some very rich plate galleons, Spain joined France, at a time when the latter's resources were almost exhausted in consequence of the attacks on her trade. The new war required the reinforcement of the blockading fleets, causing considerable anxiety at the Admiralty, who were not in favour of any material action against the fresh enemy. Nevertheless, we were able to continue offensive operations in the West Indies, which had recommenced before hostilities with Spain; and, later, the great expedition to Havana started. Martinique was reduced by Rodney in February, 1762; Dominica had been taken shortly before, and now other islands were also captured, and a great impetus given to West Indian trade. Corbett (England in the Seven Years' War) considers these proceedings against the French islands as eccentric attacks to facilitate the prosecution of the Spanish campaign, and also to influence the peace negotiations; but, in view of the privateering nuisance, it would seem that the Government must have been swayed by the commercial aspect, then, as in the Napoleonic Wars. The West Indies formed a most profitable field for their energies; aided by cruisers, and an advantageous position, they succeeded in capturing 1,400 merchantmen during the war, and were flourishing exceedingly when Martinique, their chief stronghold, and Dominica, another of their nests, fell into our hands.

At home, a drawback of prolonged blockade, a burden of which commerce must bear a portion, is shown by the escape of Blénac from Brest with seven battleships, four cruisers, and troops for the West Indies. Weather and the worn-out condition of the blockaders were responsible. This contingent was intended as a support for the allied Cuban fleet; we did not, however, permit a junction, and it accomplished nothing beyond producing much uneasiness. Pocock commanded the fleet escorting the Havana expedition, and he would have had at his disposal the total force of 34 battleships and about the same number of cruisers, had Rodney, who was on the station, carried out the Admiralty orders. As it was, partly from ignorance of the situation and partly in the interests of trade, the concentration was not effected as intended; this might have led to disastrous results if the co-operation of the Allies had been more perfect. Rodney actually had some of his ships cruising off the Spanish Main when the fleet should have joined Pocock's flag. It is a possibility, always liable to occur—though not so much in the days of wireless—that commerce attack or defence may be the cause of local distraction from matters of higher importance. Even with a great expedition like that of Havana on his hands, Pocock was not allowed to neglect the convoys, but had to secure their safety as well as that of the transports.

In August, 1762, Havana became ours, and with it Spain lost the defending fleet, representing one-fifth of her Navy. About the same time Manilla was captured by an expedition from India.

The effect of these operations on the Spanish War is best illustrated by a passage from Martin's History of France: "The conquest of Havana had in a great measure interrupted the communications between the wealthy American colonies of Spain and Europe. The reduction of the Philippine Islands now excluded her from Asia. The two together severed all the avenues of Spanish trade and cut off all intercourse between the parts of their vast but disconnected Empire."

Commerce was also to obtrude itself in another fashion, namely, in England's friendly agreement with Portugal, despite the overtures of our enemies in the endeavour to secure her as an ally. Portugal perceived the expediency of association with a Power able and willing to protect her mercantile interests, instead of, under the opposite conditions, hurting them. In return, the free use of her ports, for landing troops against her neighbour, as well as for naval purposes, was a very convenient *quid pro quo*, although at one period our Government seriously contemplated the withdrawal of help from Frederick in order to provide for the defence of our colleague, a situation saved by the death of the Czarina.

Towards the close of the war the enemy were planning an attack on Portugal, and eccentric colonial feints, to divert our attention from territorial aggression at home. As another factor commerce was also considered, in the shape of a "Continental System," as afterwards practised by Napoleon for the exclusion of English trade. This project was, however, rejected, as was the idea, if it ever occurred to them, of raiding shipping as a distraction. For the invasion of the British Isles they could not count on a concentration of more than 28 battleships, and were at their wits' end to know how to entice away our Navy for a temporary local command of the sea. Trade offered no solution, for we were quite prepared to incur the risks to merchant vessels, while blockading the battle squadrons, and, as usual, preventing the junction of the Mediterranean and Atlantic fleets.

Nothing came of this third plan of invasion, beyond a French descent on the Newfoundland fisheries, when upwards of 500 craft of various sizes were destroyed, which was successful, in an insignificant way, in drawing a superior force, but from the West Indies only. Our adversaries were reduced to exhaustion by our vigorous assault on their resources, and to a state of inanition by our sea power, and in February, 1763, the Peace of Paris was signed.

It will be seen that despite the position this interesting campaign occupies in relation to the foundation of the Empire, commerce, while exerting a very considerable influence on the general situation, takes a comparatively small part in minor strategy; except, perhaps, towards the end, when the case of Havana occurred, in which trade was responsible for the destruction of a fleet. In results the investigation is somewhat disappointing, as it was hoped that a campaign representing a variety

of elements would provide good instances of the use of commerce in war operations. It was, of course, the fundamental factor governing the lines upon which the struggle was conducted, for without it there would not have been the attraction of oversea territory to extend the war theatre beyond Europe. This is, indeed, a principle fairly prevalent, colonies exposed to attack being always a source of weakness and distraction; in the abstract, therefore, it is unsatisfying unless we can show that by taking advantage of the existence of either the sources or the transport of merchandise, either belligerent secured, or tried to secure, any material strategic benefit. We find the method of diversion persistently executed, but for the most part it took the form of military coastal and oversea expeditions supporting land warfare. In other respects the objective may have been valuable, as a naval base, such as Minorca, or as a commercial sphere, such as the West Indies. The carrying trade, though continually the object of desultory attack, offered but a slender chance of diversion, and was not so employed at home. It had little or no effect as a "containing" medium; French privateering was successful solely as a "nibbling" process; neither did our raids on the enemy's shipping tempt him to sea to fight for the command of the sea while it remained in dispute. Abroad, the rival East India squadrons, originally on that station principally in connection with the transactions of the companies, cannot be said to have influenced events in the main theatres; for, D'Aché's force of nine ships of the line, being mostly composed of Indiamen, was obviously not available for service elsewhere, while the absence of our own squadron of seven small battleships and two or three frigates did not sensibly affect the balance of power nearer home.

The operations in West Indian waters, partly associated with trade, cannot be dismissed so readily. They were not answerable for the deflection of any force entrusted with the duty of impeding junctions or concentration, though nearly so in the case of Rodney and Pocock; but the islands were a great tax on the Admiralty. In circumstances approaching equality in the naval strength of the two nations, the French filibustering at the islands might easily have been a preconceived mode of displacing force. At the opening of the campaign the combined Jamaica and Leeward Islands squadrons comprised six battleships and nine cruisers. The enemy's local assaults on trade, aided by a squadron *en route* for Louisburg, caused Pitt to more than double our force there; and in 1757-8 we had in those waters 12 battleships and 20 cruisers, besides smaller craft. The Louisburg contingent was the immediate cause of the enlargement of the fleet in the first place; but as it was retained after the departure of the passing Frenchmen, it may be assumed that the commercial element alone demanded the services of this big fleet, as was the case, on a smaller scale, in India. The system of trade defence, which is given in detail

in Corbett's *England in the Seven Years' War* (vol. I., page 357), was elaborate enough to account for a good many ships of all but the larger class of battleship. As has been mentioned, our attacks on the hostile islands were primarily evolved with another object; but the taking of these privateers' haunts must have had a participating influence, and, despite the niceties of subdivision, in the West Indian theatre of war trade may perhaps be considered the dominating factor; it was the means of drawing the forces of both belligerents to this distant zone, which, save as a French advanced base for passage to the St. Lawrence and Mississippi, could otherwise have presented no attraction.

In a two-fold sense, moreover, hostilities in Europe were unquestionably influenced by the commercial element. Firstly, our sea power was the means of producing such prosperity that England experienced small difficulty in providing Prussia with financial support, which reacted in our favour. Secondly, this same power involved France in poverty, and embarrassed her to a degree which compelled her for a time to abandon partially the Continental campaign in order to devote her weakened resources to the attempt at subjugating England by invasion. This course provided the incentive for her Toulon and Brest fleets to put to sea. Had they remained in port we should not have been afforded the opportunities which occurred of destroying an important section of their Navy. We should have been obliged laboriously to continue the blockade, suffering meanwhile the disabilities of wear and tear by exposure in a defensive policy, at the expense of operations in distant quarters, until Spain joined and threw the weight of her 46 battleships into the scales. In short, our onslaught on trade, shorn of all other ulterior motives, actually and ultimately met the Government's demand for such offensive measures as should, in the words of the Council's recommendation to the King, "divert the naval force of France in such a manner as may give His Majesty's fleet more liberty to act against them." Modernizing the conditions, it is easy to put the present situation in a concrete form with the query: How shall we coax our most likely enemy, in possession of a large mercantile marine, to sea to fight a fleet action?

Our policy when war broke out seems to have been a rather excessive devotion to the defence of trade; it is indicated in Walpole's observation: "The truth was, the clamour of the merchants, sometimes reasonable, sometimes self-interested, terrified the Duke of Newcastle" (the Premier); "and while to prevent their outcries in the city of London he minced the Navy of England into cruisers and convoys, every other service was neglected." Nevertheless, after the first shock the inexorable call for safety was obeyed, and England was able to pursue a world-wide campaign while giving due attention to the requirements of the mercantile community. That she did not go to either extreme is proved, on the one hand, by the successful

inroads of hostile privateers, very pronounced during the final year, and, on the other hand, by the frequent starving of battle squadrons in the matter of cruisers, leading in some instances to failure in interception; in fact, in the course of the war the general idea appears to have been to make all possible provision for commerce compatible with the security of territory. Our chief troubles were the shortage of men, and of frigates and smaller vessels. The latter deficiency was presumably, as in former wars, supplied by the conversion of merchantmen; we hear of Rodney hiring, and fitting out as sloops ten vessels to make up for his weakness in cruisers in his West Indian operations; and, again, in 1759, our force in small craft was increased by taking into naval employment privateers which were beginning to find their gains threatened by an Act which aimed at the checking of abuses tending to exasperate and embroil neutrals.

PART IV. THE FRENCH REVOLUTIONARY AND NAPOLEONIC WARS.

The French Revolutionary War.

A year before the war broke out Pitt had said: "Unquestionably there never was a time in the history of this country when from the situation of Europe we may more reasonably expect fifteen years of peace than we may at the present moment." The commercial element came to the rescue in making up for the reductions in personnel and matériel occasioned by this optimism, by its help in solving the manning problem, and by the facilities the shipbuilding yards afforded.

In the first 12 months or so, no question of naval or commercial supremacy was involved, the constitutional crisis being the predominant feature. French privateers were, however, responsible for much harm to shipping; and operations were mainly confined to the destruction and defence of trade, which led to Howe's battle of the First of June, 1794. France being threatened by starvation, and anxiously awaiting a convoy of 200 sail with corn and colonial supplies from America in payment of a debt incurred during the Revolution, the French admiral had instructions to save it at all costs. In this he succeeded by drawing from the route our fleet, with which he had come in contact on May 29th, suffering a defeat in the subsequent action off Ushant, which kept the enemy in harbour for the remainder of that year.

In 1796 we had Holland and Spain, in addition, to reckon with; our total force in line-of-battle ships being then 126 against 136 of the Allies. The preponderance of the enemy was accentuated by the fact that of these ships 38 British were in colonial waters, 20 being in the West Indies, to 25 belonging to the French and Spaniards, the latter of whom had 18 stationed at Havana. Our difficulties were not modified by the unsettled state of Ireland, who might be expected to receive

an invader with open arms, when hostilities assumed the new aspect of intended territorial attack. To guard against this serious danger required a vigilant watch on Brest, Toulon, Ferrol, Cadiz, Cartagena, and the Texel, and the prevention of a concentration. It is pointed out by Colomb (Naval Warfare, page 159), that if, under these adverse circumstances—one of which, be it remembered, was dependence on weather—we had assembled the Navy round our shores, we should have been abandoning commerce and our outlying possessions. If such strategy were contemplated we have to thank commercial influence for keeping us on the right tack. As it happened, our adversaries contented themselves in the first place with organizing small military expeditions, conducted over an uncontrolled sea by weak escorts. Such was Hoche's fiasco in Bantry Bay in December, 1796. That from the Texel, composed of 27 transports intended for the north, never took its departure; but the fleet which was to have accompanied it, on putting to sea—with what object is not clear, unless it was in the interests of trade—was destroyed by Duncan in October, 1797, at the battle of Camperdown.

In October, 1796, the Cadiz and Toulon fleets effected a junction whereby 38 battleships and 20 frigates were concentrated in the Mediterranean, causing Jervis to vacate that sea. For some unaccountable reason—perhaps merchant shipping again, perhaps the disabilities of dual control—these contingents separated, the Spaniards being defeated the following February at the battle of Cape St. Vincent.

The perplexities of blockade were now in part removed, but by this time Napoleon had seen the necessity of more stringent measures against England, who was his sole opponent from the Peace of Campo Formio in October, 1797, until he was given other distractions by the rekindling of the European War next year. In April, 1798, he sailed for Egypt, leaving behind a more serious plan—with preparations at Boulogne and elsewhere in progress—in which his Egyptian enterprise was meant to fulfil the important rôle of decoying a portion of our forces from the Channel to make way for invasion. Bompard's and Humbert's expeditions to Ireland probably had a similar object. The belligerents were striving for local sea command, and the incidents which followed tend to show the relegation of trade to the strategical background. The chief events were: the battles of the Nile and Copenhagen; Admiral Mitchell's capture of 12 Dutch men-of-war in the Texel; Saumarez's little action off Algeciras; and the unsuccessful bombardment and cutting-out efforts by Nelson's flotilla against the assembly at Boulogne. In no important event did trade figure—if we except the cases of Copenhagen and the West Indies—despite the many calls for diversion. Yet neither party was able to dissociate itself entirely from its attack and defence. There was in those days no established rule in the affiliation of cruisers to battle squadrons, and the latter were frequently badly served

in this respect; there were, at the beginning of 1800, no less than 146 frigates in commission, as compared with 100 battleships. If we reckon an average allowance of one frigate to every two battleships—which is liberal considering that Nelson, prior to the Nile, was practically without frigates for scouting—there were 96 frigates left unattached for trade centres, routes, and convoy, or for separate cruiser squadrons. In addition, we had in commission 103 sloops and 68 brigs, and although some of these were employed in patrol and kindred work, and in the Dover Straits flotilla, there must have been a fair number occupied with commerce. In 1793-4, alone, 788 British vessels were captured by the French; while Russia, Sweden, and Denmark, the Historians' History (vol. XXI., page 461) tells us, had been prevented from trading with France by the "ubiquitous British cruisers." Further confirmation is supplied by the innumerable instances of convoy and single ship actions related by James. With France having, as compared with our old antagonist, Holland, a superior geographical position, the idea of damaging an enemy's shipping seems to have been as inseparable from the warfare of those days as the cross-raiding of the pre-Elizabethan epoch; it is this fact which perhaps discounts any exposition of deliberate and premeditated strategic design on the part of our rivals in assailing West Indian commerce, notwithstanding the effect produced. To stifle these assaults we took Martinique and Guadeloupe in 1794, and were compelled to maintain there a powerful battle fleet (20 ships in 1796), which would have been of obvious value in European waters. In a word, a displacement of force was created which could hardly be tolerated under modern conditions.

The influence of commerce is shown less directly in the case of Copenhagen. The battle was the outcome of Denmark's association with the "Armed Neutrality" in 1801, a convention arising in consequence of our prohibitive action against the trade of the signatory States. The point is that the diversion of Parker's fleet to the Baltic to enforce Denmark's withdrawal might have been, under less fortunate circumstances, accountable for a hostile concentration.

In this war, from a commercial point of view, we were eminently successful. The French admitted in 1799 the total absence from the sea of merchant vessels under their flag. England had appropriated the carrying trade of Spain, France, and Holland, whose ships had been captured or lay idle in blockaded ports. In eight years her exports had risen from £20,000,000 to £41,000,000; and no premiums exceeding seven and a half guineas were paid during this and the subsequent campaign, though double this sum had been paid in 1782.

A glance at Table I., wherein is seen the increased use of frigates and smaller vessels, in conjunction with the foregoing facts, indicates a policy providing liberally for trade defence as well as for battle strategy.

The Napoleonic War of 1803-1814.

Although we had stopped her trade in the late war, we had not annihilated France's Navy. Hostilities broke out again in the May of 1803 after a brief respite, England being pitted single-handed against her old antagonist. Invasion was again the plan adopted to bring us to our knees, and Boulogne the centre of the military preparations. This danger, which continued until August of Trafalgar year, and was succeeded by an attempt to bleed us to death by a determined war on commerce, for a time paralyzed our action in the offensive European campaign which ensued. Arising from the new situation, an appreciation of the needs of the fleet, in the attachment of frigates and smaller vessels to battle squadrons, led to the withdrawal of a large number from direct employment in connection with commerce. Thus Nelson had with his 14 battleships, 11 frigates and 21 other craft watching Toulon and Cadiz. Out of an aggregate of 252 no less than 186 frigates, sloops and brigs were so affiliated, or engaged in bodies in general look-out and patrol work in European waters; after deducting those in the Indies, only a small balance remains for convoy duty. But despite the evidence we have, in the occasional detaching of ships and in single-ship movements, that trade route cruisers were not in use, it is not to be supposed that commerce was receiving only trifling attention; a number of the squadrons were actually combining a dual service, by virtue of the dispositions near trade termini or focal points, in the major function of observing the hostile fleets, in which the early portion of the war consisted. This especially applies to Cornwallis's Western squadron and the later-formed "Spanish Squadron." The latter, which, with the Andalusian coast under blockade, was placed for the seizure of the rich Spanish-American trade, really fulfilled much more vital functions. For instance, it was watching Gravina in Cadiz early in 1805; and when Villeneuve left the Mediterranean, Orde used his battleships to support Lord Gardner, while his cruisers kept touch with Villeneuve. This squadron also supplied intelligence to the West Indies, to Nelson (by means of a merchantman); and to Madeira a warning to the home-coming East Indiamen.

Far from neglecting the safety of commerce, our financial needs forced upon us a certain solicitude in this respect, the results of which were, apparently, the alterations in Napoleon's plans which occurred from time to time; the most noteworthy being, as we shall see, his transition from the pre-arranged scheme to distract us by fleet movements and eccentric expeditions to that of creating diversions by threatening trade, which preceded the projected *guerre de course*. Corbett (Campaign of Trafalgar), attributes the concern for commerce partly to political reasons:

"Addington's policy, therefore, has at least the justification not only of having dealt a direct blow at French

commerce, and therefore at her finance, but also of having adopted the most effectual method of protecting our own. And, be it remembered, it was the retention of our financial position that eventually enabled us to beat Napoleon down; it was our sole hope of securing allies; and, furthermore, our only possible means of offence for the moment was against French seaborne commerce."

Although the French were naturally disturbed, that they did not permit the defence of commerce to take a disproportionate share is shown to some extent by their disarming some of their smaller vessels in order to overcome a shortage in personnel; just as, later in the campaign, English cruisers had to be sacrificed to the requirements of the line.

For the execution of his invasion scheme, Napoleon's primary wish was for the control of the Straits of Dover for six hours; at a later period, when he no longer underrated the difficulties of transport, he would not be content with less than three or four days in which to effect a landing. With the object of drawing us away from the Channel, his Brest fleet was directed to harass and "contain" Cornwallis's fleet near that port; while expeditions were planned for the West Indies, St. Helena, the West Coast of Africa, Ireland, and India. In his own words (September 29th, 1804): "The English will find themselves attacked simultaneously in Asia, Africa, and America, and accustomed as they are so long to feel none of the effects of war, these successive shocks at their various centres of commerce will make them experience the evidence of their weakness." Before the end of the year, however, the Emperor's plans had undergone considerable modification in the abandonment of his oversea enterprises, with the exception of that to the West Indies. In December he was joined by Spain, while England, Russia, Austria, and Sweden formed the Third Coalition.

The following points now required our attention in the course we were pursuing to prevent a concentration and invasion:—The Texel, Brest, Rochefort, Toulon, Ferrol, Cadiz, Cartagena, and the military forces at Ostend, Dunkirk, Calais, Boulogne, and Havre; apart, therefore, from the Defence flotilla, there were the Ushant, Rochefort, and Ferrol divisions composing the Channel fleet or Western squadron, the North Sea squadron, the Spanish, Guernsey, and East Indies (ten battleships) squadrons, the West Indies squadron (two battleships each at Jamaica and the Leeward Islands), the Mediterranean fleet, a small Irish squadron, and Cochrane's flying squadron, a total of 74 battleships to the Allies' 71 (excluding reserves in both cases), distributed amongst the above ports.

It was not until January, 1805, that the enemy began to make any important move. Late in that month, Missiessy evaded Graves' squadron off Rochefort, and, pursued by Cochrane with six battleships, made for the West Indies in command

of five battleships and 3,400 troops. After doing considerable damage there, and leaving reinforcements and supplies at St. Domingo, he returned to Rochefort, arriving in May. Taken by itself, whatever the hopes upon which the move was grounded, as a diversionary raid it was successful only in a very minor degree; for from Europe it caused the displacement of but one battleship in excess of its own strength. It is true that the pursuing force remained on the station after the French quitted it, but the return of the latter was not instrumental in effecting the junctions so indispensable to the enemy. Furthermore, in spite of the capture of 33 prizes and the exaction of ransoms, as a purely profit-making enterprise it was not a useful achievement, and did not cover its own cost.

It is essential, however, to regard the manœuvre in the light of Napoleon's intentions concerning Villeneuve's fleet at Toulon. If, in accordance with an original design, this force had proceeded to Surinam, our opponents would have had 14 or 15 battleships and seven or eight frigates to worry the West Indies and their trade. Inasmuch as, besides providing reinforcements and supplies, the instructions were to put the British islands under contribution and to take all the prizes possible, it is difficult to conceive, in the face of more vital interests elsewhere, any other object than diversion at this period of the war. To corroborate this idea, in continuation of the previous orders, after he had done what mischief he could in the West Indies, Villeneuve was to have spent 20 days at the Canaries watching the East India trade-route, before calling at Cadiz for further commands. In any case, then, there would have been the temptation to despatch a more powerful fleet to destroy his, or to drive him off. There is no doubt that Napoleon attached a high value to commerce in the conduct of war; that he was keenly alive to diversionary strategy is shown again and again: what is more natural than that he should seek to harness the two together? Later, we have another exposition (Campaign of Trafalgar, page 174), in his contemplated scheme of sending the Rochefort squadron (now under Allemand) on a raid "as far possibly as the mouth of the Baltic, which would threaten British commerce and a descent on Ireland." In practice this squadron fulfilled a "containing" function. It was a standing menace to trade at one time, particularly in July, when searching for Villeneuve, whose expected arrival had caused us to raise the Rochefort blockade in order to reinforce Calder, creating much havoc amongst shipping, and requiring the deflection of a strong force to keep it in harbour.

Colomb in Naval Warfare (page 179), says that Ganteaume's fleet, from Brest, was also designated for the West Indies, but that the idea was discarded through the impossibility of getting past the blockaders; he quotes the Emperor's correspondence in support. It is not improbable that such information, true or false, may have been allowed intentionally to leak out to add to our perplexities; or, the drift of the movements of so large a

fleet (21 battleships) may have been in the direction of compelling us to raise the general blockade and to meet a great French concentration in the West Indies in furtherance of the invasion of England.

So much for conjecture. In the actual events which followed, confirmation of these views may be claimed. During Villeneuve's famous excursion to the West Indies and back, with Nelson in chase, he made a regular onslaught on shipping, capturing or otherwise harrying large and important convoys. The various alternative plans and instructions issued to him for his guidance at the end of his cruise (which Naval Warfare gives in detail), clearly indicate a reliance upon Nelson's absence, occasioned by the eccentric move, for the success of the operations in home waters. In the eyes of Napoleon, would the safety of these outlying possessions alone, without the trade involved, have been sufficient to attract Nelson? It is not likely. The commercial element was undoubtedly uppermost in the Emperor's thoughts in his campaign against the "nation of shopkeepers." Colomb does not regard the expeditions as feints. It is difficult, however, to realise Napoleon content with the West Indies as his true objective. Aggrandisement on a larger scale, the occupation of England, must have been his ultimate object, when the islands, if he coveted them so anxiously, would fall into his hands as a matter of course. In his instructions of May 8th to Villeneuve, he makes use of these words: "In fact, many things have come to pass since your departure for Martinique; the knowledge of *the enemy's force which you have drawn to America*, the strength of the squadron at Ferrol, and of the enemy's fleet before the port, the condition of your fleet, are so many necessary elements regulating impiously your ulterior destination."

In passing, Napoleon's denial that he ever intended invasion is worthy of attention. While at Boulogne he said to Bourrienne: "Those who believe in the seriousness of my menace of invasion are fools. They do not see the thing in its true light. I can, without doubt, disembark in England with 100,000 men, fight a great battle, win it; but I must reckon on 30,000 killed, wounded, or prisoners. If I march upon London, a second battle awaits me; suppose me again successful, what am I to do in London with an Army diminished by three-fourths, without hope of reinforcements? It would be madness. Without superiority of naval force, such a project is impracticable. No; this great re-union of troops, that you behold, has another aim. My Government must be the first of Europe, or it must fall" (Historians' History, vol. XII., page 543). Master of dissimulation as he was, too great attention need not be attached to this utterance; one cannot but believe that this diatribe was in reality an acknowledgment of the impossibility of obtaining the sea command. Whatever doubts are raised as to his true design, these facts stand out conspicuously:—(1) He desired above all things the absence

of our Navy from the Channel; (2) failing this, he was prepared, though reluctantly, to take his chance in a naval battle, off Brest if feasible; (3) whether he aimed at forcing on England a concentration in the West Indies, or a simple diversion in order to weaken us in European waters, such strategy depended upon the worth of the islands as trading centres; had they been unproductive, and off the trade routes, it would probably never have entered his head to use them for eccentric action. Even supposing his denial to have been sincere, the case for commercial strategy hardly falls to the ground; it proved unsuccessful, but the principle, and our own manner of meeting the situation, remain.

Upon the subsequent proceedings to the date (August 23rd, 1805) when Napoleon gave up the invasion, it is unnecessary to dwell. The history of the time is redundant with trade attack and defence, with the activity of the privateers of both belligerents, with regular convoy procedure, and with casual remunerative captures which opportunity put in the way of commanders. Notwithstanding, however, the attention devoted to the interests of trade (see Table I. for the increase in small ships), there is no evidence of neglect, on our side, of major strategy, or of undue risks being incurred thereby. That we were sorely tried is apparent from several instances, such as the cutting up of our homeward Levant convoy at the critical time when our Mediterranean fleet was trying to locate Villeneuve. On this occasion Nelson, who could ill afford to part with a single ship, despatched a 74 to see the survivors safely past the privateers and Algeciras gunboats. "But anxiety for the trade was the least of all his trials," says Corbett (*Campaign of Trafalgar*). This act of Nelson's, insignificant in itself, is typical of England's policy throughout. It was the stretching of her resources to the utmost in support of trade without unduly jeopardizing the nation's security. The Government, profiting no doubt by the experience of the Seven Years' War, even went so far as to prohibit a commercial blockade of the Andalusian coast for fear of alienating neutrals, until the activity in the dockyards of Spain, and the abundance of supplies to that country, compelled a reluctant compliance. Examples of commerce protection in a greater or in a less degree are too numerous to mention; but of the former class there is the instance of a 50-gun ship, five cruisers, and smaller vessels being allotted to the Levant trade; also Knight's squadron taking the East and West Indian convoys under its wing while escorting Craig's Malta expedition. Falling in the latter category we have the case, when Villeneuve was at the West Indies, of an urgent demand by the owners of a valuable convoy, 14 strong, being met by the assignment of one small schooner.

On July 22nd, 1805, Calder, who had been detached by Cornwallis to watch Ferrol and to meet Villeneuve on his return from the West Indies, fought his action; this was followed by the latter's entry into Vigo and Corunna, and by a great English

concentration. The Emperor arrived at Boulogne on August 3rd, ready for the consummation of his war plan. After an interval of nearly three weeks, on hearing of his Admiral's flight to Cadiz, he abandoned the invasion, withdrew the Army to Austria, and aimed henceforth at the annihilation of British commerce, and the destruction of Craig's and the Russian Mediterranean expeditions, a task allotted to Villeneuve, whose endeavours were frustrated by the battle of Trafalgar.

The removal of the invasion bogey enabled us to assume the offensive, and also to devote greater attention to the protection of mercantile interests. On August 20th, orders had been given to prepare for sea everything that would float. Alluding to the Atlantic operations, Corbett (*Campaign of Trafalgar*, page 251) says :

"The question once more was not purely military. It was distorted by the intrusion of commerce protection. It was the season for the home-coming of the great convoys. The concentration at Ferrol directly threatened them, and the necessity for securing their approach was a dominant consideration in Lord Barham's mind. 'Ferrol,' he wrote to Cornwallis, 'is the great object till our East India and West India fleets are arrived. . . .' That is, he was in the usual way to provide a covering squadron against the enemy's battle squadron and strengthen the convoy's escort as they reached the danger area of the home terminal. . . ."

With Napoleon's recognition of the possibilities underlying the displacement of force by assaults on trade, one may suppose it was either lack of information, or the delay in getting orders transmitted, that induced him to relinquish his design on receiving news of Villeneuve's move to the south, before making a final effort by taking advantage of Rainier's convoy to create a diversion. This convoy, which included the East India and China ships, and some whalers, and had Wellesley as a passenger, was valued at £15,000,000, and was naturally an element of more than usual anxiety; though it cannot be asserted that a feint on it would have had the dispersive effect desired by the French, the game might have been worth the candle. That we were not entirely dominated by fear for the home-coming commerce is indicated by Cornwallis writing on August 19th, in reference to the combined fleet: "The enemy are most likely bound for Cadiz or up the Mediterranean, . . . very improbable that they should steer for Ireland, nor do I think they would venture to cruise for any time in hopes of meeting a homeward-bound convoy." As late as August 29th we were, as Nelson pointed out in the mention of this convoy, quite ignorant of the Emperor's new projects, and in fear that his objective was this precious shipping. Yet we did not depart from the fixed policy of assigning a secondary place to commerce; for, although Calder's division, augmented by four or five of Cornwallis's battleships—to be detached as soon as he was strong enough—was ordered to the westward of the Channel to cover its arrival,

there is no hint of a redistribution to secure the route further afield or in Villeneuve's prospective wake.

The subsequent events of this memorable year, for which Corbett's Campaign of Trafalgar is the chief authority, may be briefly described as follows. Napoleon had drawn up a scheme by which his navy was to be divided into seven battle squadrons and three cruiser squadrons for a regular inroad on commerce. Craig's expedition was the means of preventing this from materializing, but Allemand's squadron was directed to cruise for six months, with instructions to do as much damage as possible to trade in order to disturb the English dispositions and to force us to break up our concentration. With this object he took up positions successively at the mouth of the Channel, a hundred leagues W.S.W. of Scilly, and, finally, near Madeira (in which locality he was till after Trafalgar), inflicting considerable injury, but not sufficient to cover the cost of his operations.

Meanwhile, early in September, the British fleet was reorganized for trade defence near home; chains of cruisers were formed from Finisterre to Cape Clear and off the Portuguese coast; the convoy system continued; and to Nelson's fleet was assigned the two-fold duty of protecting the Mediterranean shipping and watching Villeneuve, whom, he hoped, famine and the commercial blockade would drive to sea. For these purposes all possible ships had been commissioned, but we were short-handed and obliged to await the arrival of convoys for a supply of men.

The situation provides us with a fresh case of unsuccessful diversion. Although we find Cornwallis searching for Allemand, before the Frenchman proceeded south, a special squadron dogging him, and unusually strong escorts in consequence of his depredations, we did not waver in our policy affecting the main issues.

The remainder of the campaign is interesting chiefly in the effects produced by the war on commerce which ensued, and the method of its execution by the "Continental System." Trafalgar had deprived Napoleon of the more direct means of starving his enemy; he accordingly next devised the vast scheme foreshadowed by the Berlin Decrees of 1806. His line of reasoning being based upon England's dependence for the prosecution of the struggle, on her carrying trade and on the enormous profits made by selling her manufactures abroad, the decrees aimed at debarring all Europe from buying goods brought in her ships. The Emperor also sought the acquisition of the Peninsula to provide bases from which to carry on the attacks.

The commercial blockade which followed had its reply in our adopting a similar procedure against ports in the Napoleonic sphere. These blockades led to the Peninsular War, and to the American War, and were probably, in fact, the cause of the general uprising against the Emperor in 1813.

We were compelled to look to Canada instead of Northern Europe for the supply of shipbuilding material, but otherwise, despite France's most elaborate arrangement of *douaniers*, &c., she was much harder hit than England, thanks in the first place to our ubiquitous cruisers, and, in the second, to official corruption. It is said that smugglers carried their calling to such a pitch that Napoleon himself, in 1813, had recourse to their assistance in providing his Army with Yorkshire frieze for greatcoats. This gigantic failure occurred in spite of the power to which the Emperor had attained, and the considerable seaboard which had now come under his control.

From 1809 we were carrying on the land campaign, for which our command of the sea gave the necessary facilities. This year we maintained a greater number of ships in commission than at any other time during these wars, the smaller classes being particularly numerous. In 1812 we had stopped American trade, at a cost in merchant vessels approximately equal to their own losses, and had shut their frigates up in their harbours. In the same year we joined the Sixth Coalition, followed the next by the "War of Liberation"; and in 1814 the Peace of Ghent found England flourishing, and controlling the markets of the world. Her exports had risen to £58,000,000, and, putting aside special war taxation and loans, the taxes which in 1792 had yielded £19,000,000 now produced £45,000,000. France, on the other hand, was in a deplorable state, with her agriculture at a standstill and her mercantile shipping practically wiped out of existence. Our losses in this respect—aggregating £11,000 during the whole period of hostilities—did not amount to more than three per cent. per annum.

The impression produced by the foregoing study is that while Napoleon was thoroughly sensible of the use to which commerce might be applied strategically, our guarded appreciation of the situation, and the refusal to be drawn, prevented him from putting the theory into successful practice. In brief, our persistent blockades, close and open, did not, as a rule, allow the forces intended for diversion to get away; the home terminals of trade were to a large extent covered by the fleets prosecuting these blockades, with the result that the raids by Allemand, whose force was the only large one to get clear of its port for this purpose, did not greatly disturb us; and, finally, the principle was established that no serious interruption to commerce is possible to a Power not in possession of the command of the sea.

The policy of the British Government with regard to matériel is exhibited in the accompanying Table I. It indicates caution in all directions: battleships never allowed to fall below 113 in number, frigates fluctuating, but generally on the increase; and the greatest advance of all in sloops and brigs, which from 40 in 1793, and 117 ten years later, reached the total of 286 in 1813.

TABLE I.—SHOWING NUMBERS OF EFFECTIVE SHIPS IN BRITISH NAVY DURING NAPOLEONIC WARS, AT THE BEGINNING OF EACH YEAR. (From James' Naval History).

Note.—Changes due to captures, purchases, construction in merchant yards, sales, breaking up, &c., are not shown but are absorbed in the aggregates.

C = In Commission.

N = Not in Commission.

B = Building or ordered.

1793.												1794.												1795.												1796.												1797.												1798.												1799.												1800.												1801.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N			B			C			N



TABLE II.—A HISTORICAL SUMMARY, ARRANGED TO SHOW AT A GLANCE THE EMPLOYMENT

NOTE.—The Index in the left-hand column includes the elements to which the numerals and letters in brackets in the other columns refer. The numerals represent in the columns devoted to the different wars, indicate, by reference to the Index, the policy pursued in those wars. The blank spaces in the columns d

Index of Elements.	Elizabethan Wars.	First Dutch War.	Second Dutch War.
(1) and (a). Assaults on Trade sources for booty mainly.	(1)	—	—
(2) and (b). Assaults on Trade transport for booty mainly.	(2)	—	—
(3) and (c). Assaults on Trade sources to weaken opponent's resources or injure his credit.	(3)	—	—
(4) and (d). Assaults on Trade transport to weaken opponent's resources or injure his credit.	(4)	(4), or and (6) ...	(4). Spirit and jealousy of the time, showing anxiety to destroy Dutch commerce and expand the English ...
(5) and (e). Assaults on Trade sources with ulterior strategic motive	—	—	(4). block
(6) and (f). Assaults on Trade transport with ulterior motive ...	(6). To draw enemy to defend his Trade, i.e., we "contained" Spain's navy, so preventing attacks on territory and Trade	(6). To draw enemy in defence of his Trade; or and (4)	(f). Dutch tried to take advantage of our division of force against commerce, but failed through weather
(7) and (g). Special protection of Trade sources	(h)	—	(8). At conclusion ...
(8) and (h). Special protection of Trade transport	—	—	—
(9) and (j). Defence of Trade sources without derangement of war plans	—	—	—
(10) and (k). Defence of Trade transport without derangement of war plans	(10). Mutually with our attacks on Trade	(10). To limited extent, mutually with our attacks on Trade	(10). To limited extent ...
(11) and (m). Trade protection combined with battle strategy ...	—	(m). Dutch combining convoy work with battle strategy	—
(12) and (n). Disregard of Trade protection	(n). Partial and temporary prohibition of Spanish American Trade	(12). To some degree ...	(n). Dutch prohibited sailing of merchant shipping ...
(13) and (o). Sea battles brought on through Trade ...	(o). St. Juan de Ulloa, a minor affair	(13) and (o). Mediterranean and home ...	—
(14) and (p). Trade attack or defence causing distractions which were, or might have been, detrimental to movements of more importance	(14). Excursion of Essex to Western Islands during threatened invasion, but motive uncertain. (p). Enemy tied to Spanish coast in defence of Trade	(p). Hampering effect of convoys in fleet actions ... (14). Blake's dispersion of force for Trade attack before his defeat, November, 1652 ...	(14). See (f) ...

DEPLOYMENT OF THE VARIOUS COMMERCIAL ELEMENTS IN THE WARS UNDER CONSIDERATION.

Numeral represent England's, and the corresponding letters the Enemy's policy and performance; and the numerals and letters, with and without remarks, in the columns devoted to the different wars denote that the elements in the Index opposite which they are shown were not applied in those wars.

Third Dutch War.	Seven Years' War.	French Revolutionary War.	Napoleonic Wars.
—	—	—	—
(b). Privateering	Privateering	Privateering	Privateering.
—	(3). Havana and Manila, with communications; and others.	—	—
of to and ...	(4). Concurrently with blockade	{ (4). Home Trade; also Havana and Manila communications }	{ (4). Concurrently with blockade
ad- of but ...	—	{ (5). West Indies, partly extension of Pitt's diversionary system }	—
ail- ...	—	{ (6). West Indies, for displacement of force. Also Newfoundland fisheries }	{ (6). West Indies, displacement of force (not known if intentional)... }
ail- ...	—	{ (7) and (8). We made territorial captures in West Indies on account of privateering; displacement of force caused thereby }	{ (7) and (8). Territorial captures in West Indies and displacement of force there through assaults on Trade. Large number of ships for Trade defence in home waters. Convoy }
ail- ...	—	(9). West Indies	—
ail- ...	(10). And (k)	{ (10). By blockading European ports. Havana expedition also in charge of West Indian convoy. Attacks on privateer harbours, St. Malo, &c., fulfilled other objects }	{ (10). Home waters }
ail- ...	—	—	—
ail- ...	(n). Dutch prohibited sailing of merchant shipping ...	{ (13). Indirectly, our attacks on resources gave rise to invasion scheme which forced enemy to sea }	Battle of First of June—Possibly also Camperdown and St. Vincent...
ail- ...	—	{ (14). Rodney, in West Indies, marred concentration before siege of Havana. Blockades at home sometimes not effective from this cause... ... }	{ (14). West Indies possibly, as 20 battleships were diverted there }



PART V. GENERAL CONCLUSIONS FROM THE PAST.

Table II. indicates how the commercial element was represented in the wars under consideration, and contains factors which proved unsuccessful as well as successful, the failure of an enterprise not necessarily gauging its unimportance. An examination of this Table and the foregoing historical sketches will show three distinct features. *First*, that the relative geographical positions must enter largely into the part strategically assigned to trade in warfare. With the British Islands covering the approaches to the North Sea, the Dutch were soon convinced of the futility of guarding it; but in the case of France and Spain, England being less on the interior lines, and the areas involved consequently greater, the attack and defence of shipping were ever-important items on the programme, and formed a kind of undercurrent in hostilities whenever a nation had the means of execution. Taken singly the results were not vital, but in conjunction with other particulars, for example, the bottling up of the enemy's fleet in his ports, the situation was eventually rendered untenable. Where these two States were concerned, there was in home waters more of an equality in the facilities offered for the mutual destruction or protection of trade, with a balance in their favour by virtue of the locality of their bases; with the Dutch the advantage was entirely on our side. The greater the distance between countries or their dependencies, with the resultant impossibility of combining the functions of the Navy, the greater the influence likely to be exercised by the commercial element. Oversea territory and its trade have always affected strategy in some way, and are always liable to cause displacement of force. If proof were wanting, we have it in the constant obtrusion of the West Indies, and also in the fact that in 1812 American privateering was more costly to our mercantile marine than French or Dutch privateering had ever been. The geographical constituent is of peculiar interest at the present time, when the centre of probable hostilities has been shifted back, conferring on Great Britain the advantage she possessed in the Dutch Wars, which, if she profits by the lessons of history, points to a disregard of our home commercial shipping by our prospective rival, and a possible use to which hers might be put by English strategists. A further likeness to the conditions then prevailing is seen in the practical elimination of the West Indies, their trade, once so important, being now in effect swamped by that of Canada and the United States.

Secondly, there does not appear to have been any significant change, progressive or retrogressive, in the strategic use of trade on our part, or the policy it dictated, during the lengthy period we have considered, since the filibustering raids, and the final "containing" method, of Elizabeth's reign. With the advent of sea-borne commerce on an appreciable scale,

assaults on shipping largely took the place of assaults on towns and territory, except in the Seven Years' War, and became an element much overcharged by the privateering practice.

Thirdly, the First Dutch War and the "Glorious First of June" furnish the only authentic instances of sea battles (as distinct from attack on ships in harbour, as at Havana and Copenhagen) being brought on directly through trade. Moreover, there is no apparent case of especially good dispositions, procured by this element, preceding a battle.

The Dutch, however, must have been somewhat hampered by their convoy system; and, as has been pointed out, we gave openings, such as in the detaching of Tyddiman in the Second Dutch War, and in the miscarriage of Rodney's and Pocock's concentration before the siege of Havana, of which, on account of adverse circumstances or other reasons, our opponents did not avail themselves. In the business of diversion there is little but failure to record. Usually, uncertainty of intention detracts in some measure from the exposition of these moves, but in the instance of Allemand's squadron we have definite assurance that his cruise against shipping was meant as a real diversion. An example of modern times is afforded by the divertive raid on commerce by the Vladivostok division of the Russian fleet in the war with Japan—also a fruitless design.

The dividing line between commercial and other strategy is not always so easy to define as in these two cases.

Broadly speaking, the action of a fleet for or against ocean traffic may be of two kinds:—

(1) *As a complete concentrated force in a particular region, say the Shetlands, with cruisers spread within recall* :—Here we have a big fleet inviting battle; and the enemy's counter-action will consist in bringing an equal or larger fleet to the spot, or in carrying out a similar procedure elsewhere. If we know him to be bent on battle strategy, this use of the commercial element becomes unnecessary, unless :—

- (a) Foreseeing a more favourable opportunity, our opponent showed symptoms of delaying a meeting, and the trade we propose to intercept were vital and its defence urgent; or
- (b) We attached considerable ulterior importance to its seizure.

(2) *A small fleet or detachment operating in the same manner, but with the object of creating a diversion to draw a greater force against it, in order to compel the enemy to divide and weaken his force in a sphere of concentration* :—This case may be sub-divided as follows:—

- (c) If the enemy decides upon pitting the bulk or whole of his battleships against the detachment, the diversion falls to the ground, and this strategy ends in our defeat in detail.

- (d) The situation represented by (2) must therefore be one in which there is something to prevent (c) happening, or,
- (e) Our dispositions must be elastic enough to enable us to fall on the enemy with our whole weight directly we perceive (c) to be his motive.

In more concise terms the dictum is :—

(I.) *If both belligerents, of equal strength,*

- (i.) Negotiated the same trade routes with identical force, there would be no gain.
- (ii.) But if the forces on the trade routes are unequal, the Power which puts the bulk of her force on a route occupied by the enemy is likely to gain an advantage.
- (iii.) The belligerents being of equal strength, if "A" negotiated, say, two routes, while "B's" whole force was placed on one of these routes, "A" would be open to defeat piecemeal.

(II.) *If "A" were the stronger,*

- (iv.) The attempted control of a trade route by "B" would merely lead to a concentration of "A" against "B's" entire fleet, while cruisers took charge of the other routes.
- (v.) But if "A" originally divided his fleet between two routes, the disposition would be either: both divisions inferior to "B's" whole; or one division slightly stronger, the other much weaker, than "B's" whole, feasible only if "A's" strong division were on the track most likely to draw "B," or on interior lines, or if his weak division had the legs of "B."

It is perhaps unnecessary to emphasize the fact that battle strategy,¹ in which attacks on shipping are made by battle squadrons, or by cruisers supported by them, is implied, and not the sporadic assaults of cruisers acting independently. It is a form of war peculiarly adapted to convoy, with the objective coming in mass at definite periods, and is therefore the less likely to be resuscitated in our own time, except when a belligerent is determined to be drawn by no other means, for instance, while awaiting a coalition or a like improvement in his prospects.

It is true that Prussia, following the Dutch example, stopped her sea-borne trade in 1870, and she may do so again; if not, however, and our neighbour's solicitude for her ever-growing ocean commerce continues, and the North of Scotland and the Channel focal points are imagined, the foregoing remarks will easily denote how commerce—though less effectually with the abolition of convoys—can influence a modern war between the two North Sea Powers.

¹ *Vide* classification, page 724.

Taking all things in the past into consideration, the conclusion we arrive at is that oversea commerce has exercised, and may continue to exercise, a certain pervading influence over war generally, chiefly in the injury to credit associated with its assault, but also in several less direct details (shown in the following summary) which, singly, are not momentous, but in combination may be of supreme importance. That being an objective, the safety of which, like that of any other objective, will or will not bear neglect, it is liable to affect dispositions in the general theatre, in the case of its source as represented by distant territory; but, so long as a belligerent has a proper appreciation of its value strategically, and does not allow popular agitation and panic to intervene, shipping has not in the past, and is unlikely in the future, seriously to affect battle strategy in any particular sphere of operations, although its destruction may always be the means of enticing a reluctant enemy to sea.

With the exception of an occasional relapse, our policy in the past has been a fairly consistent compromise, the stretching of our naval resources—to their utmost at times—in favour of trade protection, without unduly endangering the nation's security; while assaults on commerce have, as a rule, been indulged in when such security is assured, and without derangement of major strategy; though, to take a special instance, Anson was not satisfied with the precautions at home when the Havana expedition was planned. Likewise, since the First Dutch War, though our enemy tried it, we have no record of the English attempting to obtain any strategical benefit by direct attack on shipping.

A Summary of Minor or Subsidiary Effects of Commerce.

The following effects are derived from history, or require no demonstration:—

- (1) In sailing-ship days, forces employed in connection with trade were liable to be used up through exposure and navigational dangers.
- (2) Influence of colonies, and therefore trade, in the temptation to sacrifice concentration in the danger zone, in their interests.
- (3) Confusing effect of an opponent's preparation for a *guerre de course* being mistaken for other intentions, and *vice versa*, as at the beginning of the Seven Years' War.
- (4) Mercantile marine instrumental in providing ships, men, and building yards.
- (5) Liability of neutrals being dragged into war by restrictions on their shipping during operations.
- (6) Commerce answerable for the acquisition of territory which has provided bases and coaling stations for the Navy.

- (7) The presence of shipping made discrimination between friend and foe difficult; *e.g.*, in 1805, the British vessel "Moucheron," seeking intelligence, watched Allemand on the trade route, unmolested.
- (8) Merchant shipping useful for gaining and disseminating information, and spreading false intelligence; but may also be a deterrent to secret movements.
- (9) Men-of-war engaged in trade protection or destruction are available as intelligencers, especially with the facilities afforded by wireless.

PART VI. THE LAST HUNDRED YEARS AND THE PRESENT POLICY.

Since the Napoleonic campaigns actual experience of oversea commerce in relation to war has not come into prominence, and, indeed, before a certain period naval matters generally received but scant attention. "Twenty-five years ago the subject of naval defence, regarded in its essential elements, was almost foreign to English thought. The magazines and reviews of the time bear scarcely a trace of any movement of opinion on this matter. . . . Naval history was relegated to the dry-as-dust chronicler." (Naval Annual, 1807, page 209).

Meanwhile, Great Britain has, in an agricultural sense, taken a back place, and is now dependent on sea transport for four-fifths of her wheat supply, as well as for other foodstuffs, and raw material. Up to about 1820 the nation was self-fed. Too much importance should not, however, be attached to the changed conditions, except in so far as they relate to the short period of possible panic at the beginning of war, or when raw material or our six weeks' supply of bread shall show signs of becoming exhausted; for while trade in these days is absolutely necessary for existence, it is not now open to privateer assaults during the comparatively short and decisive war of modern times; and the length of former struggles made it equally essential for the continuous provision of funds for their prosecution.

The policy of an intermediate period between the great wars and the retrocession of 1859 is represented by the state of the Navy in 1833, about the time of Sir Thomas Hardy's reorganization. In that year we had, built and building:—

TABLE III.—THE NAVY IN 1833.¹

Class.	Total.	Foreign Stations.
Ships above 50 guns	103	5
Ships of 50 guns and under	111	24
Sloops and under (including a few small steam vessels, but not cutters)	160	54

This indicates a continuance of the attention to general naval needs engendered by the wars. The Cape and West

¹ From the Navy List of that date.

Coast of Africa, East and West Indies, South America, and Mediterranean stations appropriated between them no less than 83 men-of-war.

In 1859 a Royal Commission, showing a misconception in favour of coastwise fortification, was responsible for the Navy becoming a neglected arm. Nevertheless, we did not waver in providing for trade defence, as is seen by Table IV., showing 209 cruisers and smaller vessels, in 1865; 105 being employed abroad, which, in view of the inattention to the co-operation of cruisers in battle strategy then prevailing, may be assumed as largely for this purpose. The same tendency is in evidence in the report of the Committee on Designs in 1871, when unarmoured ships in two classes, one of high speed the other of high sail-power, were strongly recommended.

TABLE IV.—THE NAVY IN 1865.¹

Class.	Total Number.	On Foreign Stations.	Number of ships, excluding gunboats under 300 tons, on Foreign Stations.
Sloops and under ...	126*	71	Mediterranean 20
Cruisers, Frigates, Corvettes	83	34	Pacific 12
Battleships and coast defence ships... ...	75†	7	China 19
			North America and West Indies ... } 20
			East Indies ... } 7
			Cape and West Coast } 20
			of Africa ... } 5
			South-East Coast of America ... } 6
			Australia... ... } 3
			Particular service ... }

* There were also 119 gunboats of under 300 tons at home and abroad.

† Upwards of 56 of these were wooden steamships.

Seven years later, arising from the Russian scare, the Carnarvon Commission investigated the subject of commerce protection; but the only palpable result seems to have been the arming of distant stations; so that we here see trade as the inducement for the preparation of naval bases self-contained against small raids, thereby relieving the fleet of the immediate duty of their defence.

Enquiries were next instituted concerning the safety of mercantile ports, the Defence Committee of 1880 pointing out that, except for submarine mines, they were entirely dependent upon the fleet for any degree of security. So the Navy received a fillip through fears for our commercial interests, and the influence continued to be felt for several succeeding years. In 1882 and 1886, Lord Brassey was strenuously drawing attention to the connection between the Navy and the mercantile marine, particularly with regard to manning, the use of building yards, and the employment of merchant steamers as cruisers; and

¹ From the Navy List of that date.

the Admiralty were organizing a reserve of these vessels, taking up 16 in prospect of war in 1885. In 1886 we had 24 protected cruisers of over 14 knots, and five of the "Marathon" class were laid down for commerce protection. A further awakening was to occur through a development of French policy, aiming at the *guerre de course*, despite the lessons of the previous wars, which they may have considered themselves justified in disregarding in consequence of the now vital nature of oversea supplies. Our neighbours commenced a scheme of cruiser expansion; to which we replied with the Naval Defence Act of 1889, making provision for a large number of protected cruisers and the arming of 30 Royal Naval Reserved cruisers. From this time there was steady progress, mainly with an eye to commerce protection, although other types of ship were not neglected. The interest of the public and the policy of the Government were broadening. The Navy was again coming to the front after a long period of comparative oblivion. One cannot help seeing a recrudescence of what was happening in the Mediterranean 24 centuries before. There the Phoenicians had a vast oversea trade upon which they were practically dependent. They were an unaggressive commercial people, easily driven out of lands; yet they possessed a large navy, "celebrated as being, for the most of the time, a type of excellence" (Historians' History, vol. II.), which must, therefore, have originally come into existence directly through commerce. Nevertheless, their fleet, through the initiative of enemies, became conspicuous in warlike operations; and on one occasion they and the Persians combined in a concentration of 600 vessels. So we see the British Navy in the nineteenth century: first brought into prominence, after a long peace, by oversea commerce; expanding under that influence; and then, as we know, with our old enemy still on the horizon, diverging from the source of its renaissance into the greater channel of battle strategy. A passage from the First Lord's speech on March 7th, 1889, will explain the development of our policy:

"As regards the effect on our commerce of a naval war, I do not refer to the possibility of our commerce being annihilated or our food supplies cut off, but I desire to point out that in order to prevent a great shock and disturbance to our trade and its consequent dislocation, due to apprehension of what might occur, it would be necessary that there should at the outbreak of a war be a feeling of perfect confidence in our naval strength. . . . Our first duty will be so to dispose of our fleets that our coasts should be defended from invasion and our naval stations from bombardment, and this disposition should be carried out on wide and general lines for the protection of our commerce. . . ."

Subsequent naval history is an interesting study of the growing appreciation of restrictions to the direct notice demanded by commerce. The principle of establishing a great cruiser

force for work with the battle fleet in obtaining the command of the sea was gradually becoming disentangled from that of providing a powerful force for the trade routes. The changes took place in the face of opposition expatiating on the vastness of our mercantile marine and the inadequacy of the means of protecting it. The layman, understanding instinctively that plenty of ships on the trade routes will make shipping more secure, hardly grasps the fact that the ultimate result is better attained by destroying hostile battleships, and that cruisers are required to act with the capital ship for this purpose. He foresees an imaginary horde of commerce assailants—perhaps because in days of yore they *were* numerous—but he forgets that if the enemy were able to divert ships in connection with trade, Great Britain would also be in a position to do so; and that in view of the absence of privateers, marauders can now only be on the routes in very limited numbers. In 1893, attention was directed to the proportion of cruisers or sloops of over 900 tons to merchant vessels, England having one to every 75, while France had one to every 30. As an argument in favour of greater force this possesses little value; for so long as there are only a few commerce destroyers (which is the modern condition), the quantity of shipping does not materially affect the case; in the first place because the capture of one ship entails the escape of others within a certain area; and, secondly, because of the impracticability of finding accommodation for the persons taken from the prizes if they are to be sunk, or of supplying crews (especially for the engine-room), if they are to be taken into harbour.

The truth is, the wish to make assurance doubly sure is the prevailing feature of literature on the subject; and it is a simple matter to call for more cruisers to effect the desired security of commerce: we cannot have too many, but can have too few. With a limit to our resources, the Government has to harden its heart against appeals in peace as, during war, it may have to be deaf to such cries as produced a dispersion of force in the Spanish-American conflict.

Before the appearance of Germany on the scene, the situation was not quite so clear as it has since become; the theatre of war was larger, a fact which, in combination with France's known leaning towards the *guerre de course*, was liable to entail a greater scattering of forces. With a possible North Sea adversary the position is more simple, and less adapted to an onslaught on trade. It is on all fours with the situation during the Dutch Wars.

The completion of the 1889 programme was expected to find us with 92 cruisers of 17 knots and over, against 19 owned by France, which seems to have been an ample provision for eventualities involving that country, as well as any likely ally, against us.

The policy of building for commerce protection continued during the next few years of comparative freedom from agitation; an interval, broken, however, by the dissatisfaction of the Chamber of Commerce with the results of the Naval Defence Act, and interrogations in Parliament, which were met by an assurance in 1897 from the First Lord that all the points in question had been the subject of careful thought.

As is shown in Mr. Goschen's speech when introducing the estimates in 1899, the idea of a *guerre de course* had not been dropped, M. Delcassé having pointedly said: "We must avoid general actions with the same perseverance that England will try to bring them about, and direct our efforts to where she is most vulnerable."

Whether on account of the change in the European situation, whereby we were casting our eyes towards the fresh potential enemy, or because of the development of the cruiser screen, or the proposed substitution of the armoured cruiser for the protected cruiser on the trade routes, or a combination of these factors, by 1904 we had reached our maximum in the latter class, and no more were to be built for some time. In this year there were seven armoured cruisers under construction, and 33 (including the old "Undaunteds") completed. Excluding ships built for Australia, we had 115 protected cruisers and 16 smaller vessels for distant trade routes, and, in addition, 20 subsidized and 42 unsubsidized reserved cruisers.

Then came the much-discussed "scrapping" policy, involving the transfer to the non-effective list of a large number of cruisers and small vessels. The Cawdor Memorandum of December, 1905, cast the onus of this sweeping change, which was accompanied by the withdrawal of some trade-defence vessels from abroad, upon the expediency of "manning the whole of the war fleet with active service ratings"; but, in retrospect, there is evident connection with the expansion of the German fleet dating from the Navy Law of 1900, together with the falling out of France from the arena, and the prior claims of battle strategy. The abolition of the convoy system, combined with the necessity for fewer vessels on the trade routes engendered by the new political situation, probably also bore a share in the measures adopted. In short, we have a modernized reproduction of conditions underlying the Dutch Wars.

The actual date at which the protection of shipping by convoy was definitely abandoned is somewhat hazy. It has taken some considerable time to shake ourselves clear of the régime of the last great war, and during the major part of the steam era the question has been in rather a nebulous state. The Naval Annual of 1898 mentions convoys as if still involved in our policy, and is in favour of their continuance on the score of the compact formation of steamers, without the old-time loss of stragglers. A former secretary of Lloyd's, Sir H. M. Hozier, had advocated convoy for all vessels of under 14 knots,

which, in 1904, would have applied to 80 per cent. of British shipping. In reply to this proposal, the Naval Annual of 1904, says: "I do not think Sir H. M. Hozier took sufficiently into account the waste of naval force defending the convoys, and the operations of torpedo craft against them. If merchant ships place themselves under the protection of a military force, they become part of that force, and can be fired at." Although there is no recollection of a public pronouncement by the Admiralty, in view of naval thought generally, and the fact that shipowners themselves, preferring the risks inseparable from independent transit, would not support a scheme which involved such delays as occur in assembly, we are justified in believing convoy, as a regular system, obsolete.

Coincident with the reduction in cruiser force, we find our strength in merchant cruisers also diminished. The Naval Annual of 1904 shows a total of 62 of these vessels, 20 being subsidized. In 1906 the number shown is only 18, six of which were under subvention. The reason for the decline may be due to a variety of causes, amongst which the following may be mentioned:—(1) The present unlikelihood of a *guerre de course*. (2) Expense; the capital sum from which subsidies are derived might be better devoted to construction. (3) The legitimate work of these vessels would have to be undertaken by others less efficient, entailing a greater burden in their protection. (4) The steamers might be at a considerable distance when wanted, with consequent delay in mounting their armaments.

The policy since pursued in this respect has been fairly consistent, the number of vessels for which guns are provided being now about 30, at home and in the Colonies.

In 1906, on the completion of the work of expurgation, we possessed 32 armoured cruisers, 21 first-class, 36 second-class, and 14 third-class protected cruisers, three sloops, and 18 merchant cruisers; and there were building three battle-cruisers and three armoured cruisers. Taking into consideration the requirements of the battle fleet on the present basis, this shows a very limited provision for the direct defence of trade.

The modern aspect of commerce protection is admirably set forth in an article by Mr. Thursfield in the Naval Annual, of 1906. The article, which covers a deal of ground, is somewhat exceptional in not calling for more cruisers. It would repay perusal by those who lack discrimination on the subject as represented in the present situation, but space unfortunately forbids a quotation here. A considerable portion of his thesis, however, is embraced in the report of the naval manœuvres of 1906, which form a distinct landmark, this being the first occasion in recent years on which the Admiralty have committed themselves publicly to explicit views. The scheme clearly indicates a definite line of thought in an attempt to show, once and for all, the strategically fallacious nature of the *guerre de course*.

as a primary or an ulterior operation, by an example as practical as peace and the co-operation of the mercantile community would permit. As will be noticed in the main facts and results, which are summarized below, there is a strong undercurrent of diversion pervading the scheme.

England was represented by the Red forces; the enemy (Scotland, Ireland, and the Channel Islands), by Blue.

Extract from the Admiralty General Idea:—“. . . Although under such circumstances the primary object of the Red Commander-in-Chief would be to seek out and defeat the Blue fleet wherever it appeared, it is not to be expected that the Blue Commander-in-Chief would risk a general engagement with the Red fleet, unless he could bring to action a portion at a time, and under conditions favourable to himself. Among the steps that he would be likely to take to cause a dispersion of the Red fleet with a view to obtaining such an opportunity, the most likely to succeed would be an attack on the Red trade. In adopting this course he would count not only on the actual loss he would be able to inflict on his enemy, but also, if the Red nation was one largely dependent on its commerce, he would be able to reckon on creating a national panic which might compel the Red Commander-in-Chief to disperse his forces to an extent that neither the actual risk to commerce nor sound strategy would justify. The investigation of the actual risks to which the trade is likely to be exposed under these conditions, and of the best means of affording it protection, without sacrificing the main object of taking every opportunity of bringing the enemy's fleet to action, is evidently of great importance not only to those who have to conduct the operations, but also to the mercantile community. An under-estimate of the risk to the trade and a too great concentration of the Red forces, might give the enemy a chance of inflicting great and avoidable loss on the merchant shipping; while, on the other hand, an over-estimate of the risk might lead to a great rise in the rate of insurance and an almost complete stoppage of trade, which would be more injurious to the country than any losses likely to be inflicted directly by the enemy. In either case a demand would probably arise on the part of the Red community for an injudicious dispersion of the Red forces on expeditions for the direct protection of trade, which would render them liable to be defeated in detail, and greatly reduce the chance of bringing the enemy's main fleet to action. Such, in outline, are the problems to be elucidated, . . . during the forthcoming manœuvres.”

The enemy, Blue, at once set themselves to precipitate a commercial crisis by the interception of shipping; and with this object their force, battleships included, was spread in three lines extending west from the Portuguese coast. Despite the separation of our Mediterranean fleet (at Gibraltar) from the

main body of the Red fleet (in home waters), after about 12 hours the Blue disposition was broken up, the battleships being partly concentrated and partly put out of action, the northern cruiser line dispersed and the survivors scattered in independent engagements, and the southern cruiser line escaping, short of coal, to Lagos, and being mostly destroyed on again putting to sea. By the end of hostilities Blue had lost 22.2 per cent. of their battleships, against 4.5 per cent. on the Red side; while in armoured cruisers the figures were 51.7 per cent. and 19 per cent. respectively, and in other cruisers 40 to 33.3 per cent. The percentage of merchant ship losses was high (55 per cent.), but this was not considered a fair test on account of the small number taking part, namely, 94 (60 merchantmen supplemented by 34 vessels representing them), whereas the number involved in actual warfare would have been 400. This loss would appear alarming, to quote from the Admiralty remarks :

" Were it not for the fact that this success of Blue was only achieved at the expense of the complete disorganization of his fighting forces, and that, as stated by the Chief Umpire, had hostilities continued it is practically certain that the commencement of the third week of the war would have seen all the commerce-destroying ships either captured or blockaded in their defended ports. . . ."

" The summary of Red and Blue losses will show the cost of a *guerre de course* against a superior naval Power, and proves that although a temporary commercial crisis might possibly be caused in London by this form of attack, the complete defeat of the aggressor could not be long delayed, with the result that public confidence would be quickly re-established and the security of British trade assured. To make an enemy's trade the main object of attack while endeavouring to elude his fighting ships is generally recognized as being strategically incorrect from the purely naval point of view, and this procedure could only be justified if there were reason to suppose the hostile Government could by such action be coerced into a mis-direction of their strategy or premature negotiations for the conclusion of hostilities."

In the last six years we have seen a steady development of the policy which the manœuvres may be considered to have confirmed. New construction has in general been devoted to units having destructive functions. The building of small fast protected cruisers has been resumed in a minor degree, but primarily, and with few exceptions, for the purpose of replacing slower vessels affiliated to the battle squadrons, the latter, as relieved, becoming available for the nearer trade routes. The inclusion of eight light armoured cruisers in the recent estimates is an innovation, the object of which is not quite clear; it is said that they will be attached to battle squadrons, so they may be expected to supplement the protected cruisers employed as

the "eyes of the fleet." The present position is succinctly summed up by Mahan in *Naval Strategy* (pages 128-131):

"The supreme naval instance of an advanced position in former times was the British blockade of French ports, by which the safety of British commerce was assured and the invasion in force of the British Islands prevented. A closely analogous disposition is the present concentration of the British battle fleet in the home waters, having in view, as is well understood, immediate effective concentration against Germany in the North Sea. In case of war, whatever particular measures may be adopted, the presence there of a fleet decisively superior to the German covers effectively all British lines of communication from the Atlantic; that is, practically with the entire world, with a possible exception of the Baltic countries. The same disposition intercepts all German sea communications except with the Baltic. It also covers the British Islands against an invasion in force. . . . The rear and its communications cannot, we know, be protected wholly from commerce destroyers in their attacks either upon supply ships or commerce. . . . They can only be checked, not wholly prevented, by light bodies or by cruisers similar to those who make them. . . . Raiding operations against commerce or against an enemy's communications, may proceed from remote colonial positions. In former wars the French West India Islands, Martinique and Guadeloupe, thus served as bases for French cruisers against British commerce and supply vessels. Provision against these raids did not then, and cannot now, depend directly upon the distant home country. They must be met by local dispositions. . . . For instance, German South-West Africa, as far as situation goes, has facilities for molesting British intercourse with the Cape of Good Hope, or beyond that route. To meet such a condition provision likewise must be local. The effect of the British concentration in the North Sea is in such cases indirect, though real. . . ."

After the appropriation of the main force of battleships, battle-cruisers and armoured cruisers, with attendant protected cruisers, for the concentration, we shall be left with four battle-cruisers for the Mediterranean (to be, in all probability, brought home in war time), and a certain number of armoured and protected cruisers and sloops, in full commission, for foreign stations (see Table V.); also six armoured cruisers and 23 protected cruisers at home ports with reduced nucleus complements. The functions of these six armoured cruisers and the Training Squadron on completing to full crews is uncertain, but they will be available either to reinforce the main fleet in the North Sea or for use on the trade routes. The 23 protected cruisers will probably be employed in commerce protection in home waters, taking the place of the outlying ships of the old Western and Irish, and, perhaps, the "Spanish," squadrons, and acting under the direct control of the Admiralty. Given these latter

vessels in a moderate state of efficiency, the chief difficulty is the manning question, the vote in this respect being decidedly limited. Considerable hostility exists to a policy which allows a shortage to occur, but it is not altogether certain that we are as badly off as would appear on first sight. We are apt to paint the matter in its worst colours because of the tendency to view it from the standpoint of peace mobilization. On such occasions we see a difficulty in finding the personnel because reserves are called out compulsorily only by proclamation on the threat of war. In the mimic warfare of the annual manœuvres we have to be content with what we can get. An attempt to overcome this obstacle by the introduction of a special, or "Immediate" Reserve is now in operation.

The manning question is intimately connected with oversea commerce in two ways: firstly, because the officers and men of the Royal Naval Reserve, who will fill casualty and other vacancies, are derived mainly from the mercantile marine; and secondly, because the cruisers of the Third Fleet (with reduced nucleus crews) will be the ships to suffer in the event of a deficiency, which means either the employment of fewer trade route vessels, or undermanning. It will be recalled that the same trouble occurred in the French Wars. The fact that these cruisers will have Fleet Reserve men for the majority of their complements does not call for alarm; it is not to be expected, neither is it essential, that commerce protectors should attain to the high state of efficiency of ships to be applied to battle strategy.

In the unhappy and, it is to be hoped, improbable event of this country being at war with Germany, the local arrangements for defence of trade, to which Mahan alludes, will be provided for by the ships on foreign stations, leaving the Admiralty unfettered at home. These ships would be aided by the Dominion Navies which are springing up, and in some cases by converted merchant cruisers. The chief focal points to be guarded are the Cape, the Straits of Malacca, Aden, off Melbourne, the Falklands, and the Cape de Verde Islands; and, later, Jamaica will come into prominence with the opening of the Panama Canal. Table V. shows the ships which may be expected on the trade routes. Acting on the justifiable assumption that Germany would be quite unable to augment the force she now maintains abroad, and taking into consideration the numbers of converted liners to be employed by both belligerents, we should generally own a slight margin of superiority. Possible exceptions are the East Indies, unless the Indian Marine comes to our assistance, the Cape, and the Pacific coast of South America, where a sloop is of doubtful value in the heavy weather to be met with. If the Adriatic Powers became hostile, the contingency would doubtless be met by the inclusion of the French Navy, which, with our squadron, should suffice to keep open the Mediterranean trade routes.

TABLE V.—PROBABLE BRITISH AND GERMAN FORCES ON TRADE ROUTES.

A.C. = Armoured Cruiser. P.C. = Protected Cruiser. G.B. = Gunboat.

Station or Locality.	Number of Cruisers, Sloops, Gun-boats, and other available vessels (not river gunboats).		Number of converted cruisers to be expected.	
	British.	German.	British.	German.
Atlantic—Home or adjacent waters ...	23 P.C.'s. ¹ ...	3 or 4 training ships.		
Atlantic—N. America and West Indies	3 P.C.'s. 2nd class ¹	1 P.C. 2nd class	23	30
S. Atlantic and West Coast of Africa	2 P.C.'s, 2nd class, 1 G.B. ¹	2 G.B.'s ...		
Training Squadron in addition ...	6 A.C.'s ...	—	—	—
Mediterranean (4 Battle Cruisers to be added)	4 A.C.'s, 4 P.C.'s, 2nd & 3rd class, 10 T.B.D.'s ...	—	—	—
East Indies ...	5 P.C.'s, 2nd & 3rd class, 3 sloops and "Sphinx"	—	—	7 or more.
China	4 A.C.'s, 2 P.C.'s, 2nd class, 2 sloops, 3 G.B.'s, "Alacrity" and 10 T.B.D.'s ...	2 A.C.'s, 3 P.C.'s, 4 G.B.'s, and 2 T.B.D.'s ..	4 ?	—
Australia (Australian vessels also becoming available) ...	1 A.C., 5 P.C.'s, 2nd & 3rd class, 1 sloop ...	2 small cruisers, 1 surveying vessel ...	3?	—
Cape of Good Hope and East Coast of Africa	2 P.C.'s, 2nd class, 1 P.C. 3rd class	2 small cruisers	—	3 or more. Several "tramps" which might be armed.
Pacific Coast of America	2 sloops ...	—	—	

¹ Training Squadron may also be employed in Atlantic.

The withdrawal of vessels from abroad has been the principal cause of outcries that have been raised; but the devotion to battle strategy which this action implies, at the expense, in the eyes of a section of the public, of trade, is not to be supposed to signify any callousness to the needs of mercantile shipping. Indeed, it is so much to the interests of the naval authorities to allay anxiety in this respect, that the question may be assumed to have received the attention it deserves. By means of food supply commissions, and other sources, we have a perfect appreciation of the possibilities of panic and distress; and the avoidance of the risks of strategists being overcome by popular agitation in war time is one of the extremely important points with which the Admiralty has to deal. Modern conditions are in favour of a large proportion of trade escaping the unwelcome notice of the limited number of commerce destroyers which may be expected. There will be no convoys to attract indiscriminate crippling and capture; steamers, not being subject to the wind, can fly in any direction whilst a comrade is being boarded; masters will have a more intelligent grasp of the

situation, and be able to exercise their ingenuity in a variety of ways; while, by wireless and cables, accurate knowledge of proceedings on the trade routes will be available, all hostile ships may be located, and facilities provided for bringing into action the efficient organization of shipping companies to which the Admiralty will look for co-operation. One is treading on delicate ground in mentioning another modern condition, which seems to have escaped all writers save Mr. Norman Angell; that is the internationalization of capital. It is beside our point to dwell on the subject matter of his Great Illusion, but in so far as it affects the transport of merchandise (to which pages 266, 294 and 298 are particularly relevant), this new factor is likely to exert some influence in tying the hands of a government otherwise intent on destroying commerce.

Another detail, involved in the remote chance of marauders attempting raids in the Channel and North Sea, is the alternative use of ports in the west, well out of danger in the narrow sea. Although our most important distributing centre, that of London, whose area comprises ten million inhabitants, besides Newcastle and Hull, will be affected, we shall be still left with the distributing centres of Liverpool, with nearly ten million people, Bristol, Cardiff and Gloucester.

In addition to the maintenance of such vessels as are considered necessary, our policy includes a general organization in aid of safe passage. The Chief Umpire in the manœuvres of 1906, referring to the frittering away of force by providing for convoy and for a succession of rallying points along the trade routes remarked: "It is therefore probable that on the outbreak of war shipowners would prefer to be left with a free hand as to the action of their vessels as regards routes, times of sailing, &c., but it is absolutely necessary that a limited control should be exercised by the Admiralty over the floating trade. One of the most important considerations in connection with this subject would appear to be the question of affording all possible information to shipowners as to the safety or otherwise in war time of different routes and localities." These requirements are met by a world-wide system of intelligence sections and centres, in which consuls, custom-house and other officials combine with the local naval authorities to obtain and promulgate the desired information.

EPITOME OF THE PRESENT SITUATION.

I. The past is to some extent a guide to the present, but conditionally so in consequence of certain salient changes introduced by modern conditions. These are:—

- (a) The internationalization of capital.
- (b) The abolition of privateering, and the scarcity of commerce destroyers, compared with a very considerable increase in shipping.
- (c) The limited radius of action, and the difficulty of replenishing the bunkers, of commerce destroyers; and, as a natural result,

- (d) The multiplied difficulties and hazards of evasion by commerce destroyers.
- (e) The gradual disappearance of the sailing vessel.
- (f) Shorter periods of war through the perfection of modern weapons of destruction.
- (g) Facilities afforded by telegraphic communication.

II. The deductions to be drawn are:—

- (a) That attacks on trade are likely in the future to be desultory, and finally unsuccessful;
- (b) But that there is always the possibility, however remote, of the creation of diversion, or the confusion of strategy, by means of this element.
- (c) It is probable that oversea commerce will be strategically detrimental to the nation attacking it, on account of the weakness following the dispersion of effort entailed.

III. Our present policy may be summarized as follows:—

- (a) Provision for battle strategy at home, the paramount factor.
- (b) Provision for trade defence abroad by forces generally equal or slightly superior to those of any one nation with whom we are likely to be embroiled.
- (c) Defence of trade in the Atlantic by obsolescent cruisers and converted merchant cruisers, forming a force considerably stronger than any hostile force which may be expected on the routes and terminals. By this arrangement it is hoped that public panic may be avoided and ignorant agitation ignored, so that there should be no restrictions and distractions prejudicial to major operations.
- (d) Abolition of the convoy system, and the substitution of a limited control of shipping by the Admiralty.
- (e) The institution of bureaux of information and advice for merchant vessels in the necessary quarters.

APPENDIX I.—STATISTICAL LANDMARKS, &c.

England's force on paper in 1684: 9 first-rates, 14 second-rates, 39 third-rates, and many smaller vessels. Pepys reported ships and administration in a rotten state.

1748-59.—England declared commerce with French West Indies illegal, and shipbuilding material contraband, and, in 1756, captured 56 Dutch ships which had violated these laws.

1793-4.—French cruisers captured 788 British merchantmen.

1793-1814.—Total number of British merchantmen captured, 11,000.

1795.—Number of merchantmen belonging to Britain, 16,875.

1810.—Number of merchantmen belonging to Britain, 23,703.

1801.—Population of Britain, 16,000,000. Price of wheat rose to 119 shillings per quarter: high price due to monopoly of landowners and farmers.

1812-15.—England lost 2,300 merchant vessels to the Americans, of which 750 were re-taken. The loss in American shipping was 1407.

1815.—British exports, £51,000,000.

1883.—British exports, £305,437,000. British Colonies' exports and imports, £405,579,000. British merchant vessels numbered 24,675, French 15,222, and German 4,315.

Number of British and Colonial merchant ships, 1909, 38,798; 1910, 38,928; 1911, 39,154.

1841.—The year marking the maximum wheat production in the United Kingdom, sufficient for 24,280,000 persons.

1870.—Foreign trade of United Kingdom, exclusive of bullion, etc., £547,000,000. Ditto in 1901 was £870,000,000.

Foreign and coastal trade entered and cleared in ports of United Kingdom, in 1870, 73,198,600 tons; in 1900, 208,777,000 tons.

Stock of raw material for manufactures usually kept in United Kingdom is now sufficient for about one month only, in view of speed in transport.

Ten per cent. of food stuffs reach this country in foreign vessels.

A corner in United States wheat in 1898 caused price to rise from 25s. 5d. to 48s. 1d. per quarter.

A shortage of two per cent. in the supply of shipping tonnage may cause a rise of freights of at least 20 per cent. (George Renwick, R.U.S.I. JOURNAL, April, 1912).

In June, 1912, number of merchant vessels building in the United Kingdom, 529, of 1,774,040 tons gross, of which 367 for Great Britain, 11 for Germany, and 31 for British Colonies. The aggregate is a record.

APPENDIX II.—BIBLIOGRAPHY.

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A NATIONAL CADET ARMY.

By CAPT. J. ATKINSON, A.S.C. (T.F.)
Major, 1st Cadet Battalion of Hampshire.

On Wednesday, March 19th, 1913.

COLONEL SIR WILLIAM WATTS, K.C.B., in the Chair.

INTRODUCTORY—THE TERRITORIAL RECRUIT.

SO long as England depends to so great an extent for her own defence on a volunteer and non-professional army, so long will it be the duty of the nation to see that, not only is that army complete as regards numbers, but that the personnel is the best that the nation can produce, both as regards keenness and physique.

Now I venture to submit that if any Territorial commanding officer at the present time were asked the question, he would be bound to admit that in respect of these two qualities many of his men are not all that could be desired, and that he had been obliged to sacrifice quality in favour of quantity. Although the creation of the Territorial Force has been a great step forward, and has, on the whole, given us a much more efficient home defence army, yet on the other hand, the social status of the man in the ranks is not now what it was some years ago; the increased conditions of efficiency and the compulsory camp have weeded out the old Volunteer who joined only for the social side; but on the contrary the increased pay has attracted to the ranks the man of lower standing and education, who formerly went to the Militia, and this largely accounts for the present shortage in the Special Reserve. Ask any Territorial commanding officer of the present day, and unless he commands "a class corps," he will agree that the man who enlists only to wear a uniform, or the man who comes in only for what he can get, and sooner or later has to be turned out, is the most unsatisfactory part of the present system.

THE PATRIOTIC EDUCATION OF THE YOUTH.

Granted that there is truth in these statements, and that through lack of physique and keenness a too large percentage

of the Territorial Force are only "paper efficient," we are forced to the conclusion that our second line of defence, although reinforced by the Territorial Force Reserve and National Reserve, is weak indeed. How then in the absence of compulsory service are we to remedy this evil? In the writer's opinion it can only be done in one way, and that is to train up the youth of England on such lines that they will consider it not only a duty but an honour, on arriving at a proper age, to become Territorial soldiers, and once enlisted will equally consider it a duty to fit themselves to the best of their ability for the *rôle* they have undertaken. It is, after all, a matter of education, and given that boys are secured at a receptive age, that they are then taught the elements of military training and discipline, that they have implanted in them the idea that it is their proud duty to serve their country, and not with the idea of what they can make out of it, there can every year be passed into the Territorial Force thousands of well set-up lads, with the right spirit in them, who will gladden the heart of any commanding officer.

It may be said that this is being done by the Boy Scouts; but although my statement may meet with some opposition, I am convinced from a long and close study of the Scout movement that as a feeder to the Territorial Force it is, as a general rule, of no use whatever. In the first place, by taking in the very small boy it has driven out the older one, and the average Boy Scout does not now serve much beyond 13 years of age, and in the interval between that age and 17 becomes a "slacker" and is lost to the country. As a result of fairly exhaustive enquiries, there being no official records kept, I have come to the conclusion that it is quite the exception to find Scouts going into the Territorial Force, and if they do remain in the Scout movement beyond the age of 14 or 15 they are generally secured as assistant scoutmasters, or failing this, working side by side with the little boy, they naturally fall into slack ways and do themselves no good. Moreover, the haphazard system by which almost any one offering his services is granted a scoutmaster's warrant, results oftentimes in very unsatisfactory persons being placed in command, and boys coming under such influence get a wrong idea of discipline, and rarely afterwards conform to the sterner *régime* of a military unit.

Undoubtedly the problem in the patriotic education of to-day is the youth of from 14 to 17, the most receptive age, the age at which he can be trained on proper lines for service in the Territorial Force, and the age for which no organization has yet been established. It is an age at which he scorns the company of younger boys, and longs to emulate his older brothers, an age at which the patrol cries and the Indian games of Boy Scouts cease to appeal, and an age at which, unless skilfully handled, the boy will drift, if not into a loafer, at any

rate into one of those only too common individuals who believe in spending all their spare time on their own enjoyment. It is at this point that a National Cadet Service would form the connecting link between the Boy Scouts and the Territorial Force.

CADET REGULATIONS.

Under the Provisional Regulations for Cadet Corps, 1910, Territorial Force County Associations are empowered, on behalf of the War Office, to grant official recognition to Cadet units, composed of boys between 12 and 17 years of age, only seven per cent. of N.C.O.'s and bandsmen being allowed to remain beyond the latter age, the remainder passing into the Territorial Force on leaving the Cadet Force. Cadet units are normally organized in companies, consisting of not less than 30 Cadets nor more than 100, with permission, where there are four or more companies, for such to be organized as a Cadet battalion. The power of making rules and regulations for each unit is delegated to the officers commanding units, such rules to receive the approval of the County Association. The financial status of each unit is to be such as to render it entirely self-supporting. Officers of such units receive Cadet commissions, granted on behalf of the War Office by the Lord-Lieutenant of the county, and they rank as junior to all Regular, Special Reserve, or Territorial Force Officers.

PRIVILEGES.

The privileges granted to such recognized corps are the issue, where stocks permit, of free camp equipment, permission to encamp on Government ground, use of Government ranges, drill halls, etc., wherever the exigencies of the service permit; permission to purchase obsolete arms and stores, free issue of certain military publications, and an annual grant of £5 per company, to be paid to and administered by the County Association. In addition to this, Cadets enlisting into the Territorial Force within six months of leaving a Cadet unit, may, at the discretion of the officer commanding the Territorial unit in which they enlist, be excused all or part of their recruits' drill. Under the same conditions Cadet service after the age of 15 may count towards the grant of the Territorial Force efficiency medal. Cadet officers and N.C.O.'s may also be allowed to attend courses of instruction, or be attached to Regular or Special Reserve units, but under no circumstances will they be allowed to receive any pay or allowances, nor will they be entitled to government quarters or mess accommodation.

STRENGTH AND PROGRESS.

This reorganization of the Cadet Force, till then practically confined to Schools, took place on May 21st, 1910, and one

report has up to the present been issued, showing the progress made up to April 30th, 1912. This report, however, is not as complete as could be wished, inasmuch as many units being only just formed had not been officially inspected for the year, nor had they furnished returns of strength. According to this report the strength of the force in April, 1912, was 1,000 officers and 18,000 other ranks, as against 178 and 5,536 in 1910. This number was organized into 54 battalions and 99 corps, making a total of 153 units, organized into 427 companies, 77 of these being affiliated to Territorial units. The average number of drills performed for the year, so far as records were kept, was 48.18 per unit, and the average attendance per drill was 66.43 per cent. Fifty-five units out of 96 practised with miniature rifles, the largest number of rounds fired by the Cadets of a unit being 11,130, or an average of 210 rounds per Cadet; the average for the whole force being 50.23 rounds per Cadet. Fifty-six out of 96 units went to camp, one unit taking 440 Cadets. The average period spent in camp was 9.89 days.

Cadet units have only just begun to keep accurate records of lads who join the fighting forces of the Crown from the Cadet Force, but so far as is known, from May, 1910, to April 30th, 1912, the number was 1,030. These numbers, however, in all probability, represent a comparatively small percentage of the actual numbers enlisting, as, until lately, many units did not keep a record, and by far the greatest number have only kept a record for the Cadet year ending October 31st, 1911.

Going back to the concessions granted by the War Office to Cadet Corps, it cannot be said that these err on the side of generosity; but, on the other hand, it must be remembered that the Cadet system is at present a new thing, and naturally the War Office does not feel inclined to spend too much public money on a young and untried horse. To those who can read the signs of the times, it is evident from the additional concessions granted in the 1912 Regulations, that the powers that be are prepared to increase their grants and privileges in proportion as the strength and efficiency increases, and, after all, this is a fair bargain.

Now, in the writer's opinion, the goal at which to aim is behind each Territorial unit to form a corresponding Cadet unit, composed of boys from 14 to 17, such units passing on, roughly, one quarter of their strength each year, and filling the Territorial ranks with young fellows who are not joining for the sake of a uniform, nor for what they can get out of it, but because, firstly, they have learned to like soldiering, and secondly, because they feel it is their duty so to do. That this is possible I am fully assured, for from records I have kept I find that in properly run Cadet units 85 per cent. of the lads join either the Regular or Territorial Forces, and it is the exception for these lads not to become N.C.O.'s in a short time.

HOW TO MAKE THE MOVEMENT A NATIONAL ONE.

To make the Cadet movement a success it must be a national movement, rather than, as at present, a series of independent efforts. It is absolutely necessary that we should start at the fountain-head with an appeal from the Secretary of State for War to the Lords-Lieutenants of counties; these gentlemen, in connection with the Territorial Force County Associations, issuing an appeal for officers and for companies to be raised through all mayors, chairmen of U.D.C. councils, education committees, commanding officers of Territorial Force units, and scoutmasters, the latter passing on scouts when they attain the age of 14, a system which General Baden-Powell has himself approved in a speech at Auckland, N.Z., recently. At the present time the Cadet Force is languishing for want of support and advertisement, and it is a matter of soreness with Cadet officers that, though Lord Haldane has frequently inspected Scouts, so far as can be ascertained he has never so honoured the Cadets, although instituted during his tenure of office. With such an appeal as I have mentioned above, well driven home—for the problem of the lad appeals to everyone—it should not be long before each town, each grammar or secondary school, and each group of elementary schools should have its own company, such companies to be independent as regards finance and their own internal affairs, but bound up in a battalion formation, each battalion being attached to its own county regiment.

Let a lad once feel that he is a member of the 1st Cadet Battalion of the South Wales Borderers, or of the 2nd Cadet Battalion of the Lancashire Fusiliers, and you instil into him a pride that he will never lose. We have the glorious traditions of our Army to back the movement, and the pity of it is that at present we are making no use of them at all. Furthermore, the battalions of the Senior Division (to which I shall allude later), should be allowed to attach to their designation the word "Territorial," *e.g.*, 1st Territorial Cadet Battalion Cheshire Regiment, or better still, be known as a Territorial Force Training Battalion. This would have the effect of making every Cadet feel that he had a place in his country's service, and would do much to foster a spirit of patriotism.

Battalions would be organized in brigades and divisions, on exactly similar lines to the Territorial Force, and though divisional troops could not be raised on the ground of expense, there is no reason why each brigade should not have its engineer, R.A.M.C., and cyclist companies.

A TYPICAL CADET BATTALION.

Now, in suggesting the lines on which Cadet battalions might be raised, I trust I may be pardoned in taking as an example the battalion which I have raised, the 1st Cadet

Battalion of Hampshire, shortly, I hope, to become the Senior Cadet Battalion of the Hampshire Cadet Brigade. This battalion has its headquarters and two companies in Aldershot, with other companies in Farnborough, Basingstoke, Farnham, Crondall, Portsmouth, and Lymington, and is nearly 500 strong, the companies being kept at a strength of from 50 to 60, as it is considered that in the absence of a permanent staff instructor this is as large a number as the officers can hope to train and control. The uniform is both neat and serviceable, combining both walking-out and service dress, and consists of a blue patrol jacket, with shoulder titles "1st C. Hants," khaki drill breeches, blue putties, khaki general service cap, with blue band, and, as a crest, the county arms, universal brown leather belt and brown pouch, and obsolete carbine purchased from ordnance stores at 1s. each. The total cost of this outfit is 12s. to 13s., according to size, and it is purchased in one of two ways, which I shall describe later. Haversacks (khaki part worn) and waterbottles are obtained through the ordnance at a cost of 1½d. and 6½d. respectively, and these are supplied, together with the carbines, out of battalion funds. Bayonets, if desired, can be obtained at 6d. each, frogs at 1d., and rifle slings at 3d. For field training the patrol jacket can be replaced with a khaki shirt.

It is felt by some officers that, if only from a regimental point of view, and to make a lad feel that he is really part of the armed forces of the Crown, the regulation dress should be field service dress, but I am of opinion that the blue jacket has its purpose from a recruiting point of view.

OFFICERS.

In raising Cadet companies, the first and most important factor is the officer commanding the company, for in all voluntary organizations it is on the personality and keenness of the head that the success of the unit will depend. It is, in my opinion, absolutely essential that all officers should be of fair social standing, and that first commissions of junior officers should be of a probationary character. The practice also of giving Cadet commissions to men serving as N.C.O.'s and privates in the Territorial Force should be stopped, as it is not conducive to harmonious working, and the dual position often raises considerable difficulties. If possible, battalions should be commanded by ex-Regular or Territorial officers, and, indeed, if possible, field officers might with advantage be taken from the same classes. It is, however, when we come to the company officers that we find a huge field before us, and one which has practically up to the present never been tapped for military service. Between the officers of the Territorial Force and the man in the ranks there is a large class of young men, belonging, if I may so

describe it, to the "middle middle class," who, while not aspiring to a Territorial commission, do not exactly care to serve in the ranks, except in what is known as "a class corps." Outside London, where practically alone class corps exist, the services of these men are lost to the country; but if taken in hand and properly trained they make excellent Cadet officers. Such men are to be found among the ranks of bank cashiers, solicitors' articled pupils, estate agents' pupils, clerks in good mercantile houses, etc. If to these we add ex-N.C.O.'s of the Territorial Force of good social standing, we have surely a wide enough field from which to draw our officers. Two points, however, must be borne in mind if the Cadet movement is not to fall into the same error as the Boy Scout movement, the first being that the officers must know their work, and the second that the officer, while a man in years, must be a boy at heart.

RECRUITING.

The matter of recruiting is one that depends entirely, both as regards officers and rank and file, on successful advertising and influence, and here the War Office would do well to take example from the Boy Scouts, who have achieved perhaps the most successful advertising campaign of modern times. Appeals, as I have before stated, must be national, from the War Office to Lords Lieutenants and County Associations, and thence through mayors, chairmen of councils, education committees, and every public body to the lad in the street. Indeed, with the Insurance Act posters and literature as a precedent, I fail to see why similar means could not be utilized. From a long study of the British boy I am certain that the coming generation is more loyal than the present one, and that if the boy once feels that his country wants him, and that he is to take a real part in the national life, he will respond only too readily to the call.

FINANCE.

Next, coming to the question of finance, the most important question of all, I may say at the outset that I am absolutely in opposition to those gentlemen, who, when raising a cadet company, make a public appeal for some £200 or £300. A certain amount of money must be raised, but in addition to the payments by the boys a company should be well run on an expenditure of £20 to £30 a year, and there are few towns or institutions in which this amount could not be raised. In the first place, the paid sergeant-instructor should, except in special cases, be eliminated, and all drills carried out by the Cadet officers and N.C.O.'s. The former, to learn their work, could be attached to a local Territorial company for a few months, and there should be a qualifying examination for every rank above that of second-lieutenant. For drill purposes every advantage could be taken of Territorial drill halls, and

where these were not available, most education authorities, if approached by the County Association, would no doubt allow the use of the local school one night per week for drill purposes. If rifle clubs are, moreover, to receive recognition, one condition should be that their ranges shall be open to Cadets one evening per week. The uniform, as I have before stated, would average 12s. 6d. per Cadet, and would last four years if the boy went to each camp, six years if not attending camp. Belts costing 1s. each would, of course, practically last for years, thus leaving on an average 11s. 6d. to be covered in five years. This could be covered by an annual subscription of 2s. 6d., or, better still, a first year's subscription of 5s. and a subscription of 2s. 6d. in subsequent years. Haversacks, waterbottles and bayonets would cost another 1s. 6d. per head, but this might be met by a special subscription. From a long study of the subject I am firmly convinced that the prices are such as to keep no boy out. The annual camp, as I will show from balance sheet attached, could well be run in a battalion camp at 8s. per head, exclusive of railway fare, and of this the Cadet would contribute 5s., the remainder being found by the company funds. Thus, for a company of 50 boys, of whom 40 attend camp, the following might roughly form the expenditure for the year:—

	£ s. d.
Paid by company for camp, 40 boys at 3s.	6 0 0
Paid by company for railway fares to camp, say 40 at 3s.	6 0 0
Postage and stationery	3 0 0
Ammunition	2 0 0
Haversacks, waterbottles, carbines, 50 boys at 2s., cost spread over five years	1 0 0
Incidentals	2 0 0
	<hr/>
	£20 0 0

Towards this is the Government £5 grant, which might be paid over entire to units.

TRAINING.

As regards the interior working of the company, I would suggest that companies, in country districts, or even perhaps in towns, should not exceed 50 or 60 in strength, and should, if possible, have one captain and two subalterns. Each Cadet on enrolment would sign a promise to serve for one or two years, and that the enrolment form should also be signed by the parent as giving his consent to the Cadet joining. The age for enrolment should be 14, boys below that age being advised to go to the Scouts, and scoutmasters, on the other hand, endeavouring to get their lads, on reaching 14, to transfer

to the Cadets. The training should follow on the lines of that of the Territorial Force, but gymnastics, scouting, knotting, boxing, and single-sticks should also be introduced. In fact, the ideal to aim at would be a happy blend of military and Boy Scout training. In connection with each company the commanding officer would find it a great help to run a small labour bureau, by means of which places in the labour market would be found for well-conducted Cadets. It is well to remember that one boy placed out well in the world, through the agency of a Cadet company, is the finest possible advertisement for such a company.

LOCAL COMMITTEES.

Each company might be administered by a local finance committee, formed in preference from the corporation or urban council, of which committee the officers should be members. The duty of this body would be both to recruit and to raise the necessary funds, leaving the officers free for the training of the boys. Books and returns should be cut down as much as possible, the necessary ones being: (a) muster roll of the company, giving name, date of enrolment, age on enlistment, occupation, number of drills and musketry performed each year, promotions, etc.; (b) section rolls of attendance; (c) equipment ledger and arms books; (d) postage book; (e) company cash book. The conditions of efficiency should be 30 drills in the first year, and 20 in each subsequent year, with a course of 28 rounds on the miniature range. In addition to the annual inspection by the officer detailed by the G.O.C., each company, in the case of those forming a battalion, should be inspected half-yearly by a field officer or the adjutant.

THE POSSIBILITIES OF THE MOVEMENT.

I have now given briefly the lines on which, in my opinion, Cadet battalions can best be raised, and if perhaps I am considered too sanguine on the possibilities of the Cadet movement, may I quote from that distinguished soldier, Lord Roberts? He says, "No work can be more useful than the training of our boys under the Cadet system at a time of life when they are most in need of control and most impressionable." Might I, even, to show the pitch of training to which Cadets can be brought, instance the march of a detachment of 40 Cadets of the 1st Cadet Battalion of Hants, from Bagshot to London, 28½ miles, in 8½ hours, the lads subsequently marching on to the Horse Guards, where they were inspected, and then on to the Mansion House, completing 31 miles without a single lad falling out? It is a record that has not yet been beaten by the Territorial Force, and one which the *Daily Telegraph* described as "A splendid performance by 40 sturdy lads and their officers, which

should serve to draw the attention of the County Territorial Associations to the great value of Cadet Corps as recruiting agencies for the Territorial Force," or, in the words of another paper, "The officers of the battalion are to be warmly congratulated. They have proved to a much wider world than that from which the battalion is recruited, that the Cadets are not merely boys playing at men's work, but that they are taking their duties seriously, and that there is being built up for the Territorial Force a body of recruits with a very considerable knowledge of military matters generally."

Having, I hope, with a certain amount of success shown the possibilities of the Cadet Force, may I venture to point out a few of the means by which a great impetus could be given to the movement? At the present time the fight is purely one of individual, rather than collective, effort, and a fight hampered by the fact that the members of County Associations are woefully ignorant of the force which they are called on to administer. It would be of the very greatest service if the War Office would lay down that where the number of Cadets in any county should exceed, say, 500, there should be a Cadet representative on the Association, with an additional representative for each 1,000 or portion of 1,000.

NECESSITY FOR A CADET OFFICERS' ORGANIZATION.

My next suggestion is perhaps even more alarming, as it is the formation of a Cadet officers' organization, with whom the War Office would confer on subjects touching the Force. With no apparent head, no representation, no direct channel of communication, and administered by bodies having little or no knowledge of the Force and its wants, the Cadets are indeed "nobody's children," and until some such method can be arranged by which the War Office officials can come into personal touch with those who are actually working with Cadet units, the movement will be seriously hampered.

JUNIOR AND SENIOR DIVISIONS.

A further pressing need, and one which has to some extent been dealt with unofficially so far as London is concerned, is the division of the Cadet Force into a senior and junior division, on the lines of the Officers' Training Corps. The senior division would include all units properly equipped in a military uniform approved by the War Office, and who recruit only boys over 14 years of age. Such battalions should receive an increased grant, and their officers rank senior to all those of the junior division. All units recruiting boys under 14, isolated companies not in a battalion, and units in a non-military dress, such as the Church Lads' Brigade, would be placed in the junior division.

The senior Cadets might be known and recognized as Territorial Cadets or Territorial Training Corps in order to distinguish them from the Officers' Training Corps Cadets, or fancy persuasions such as Church Lads' Brigade Cadets, Scout Cadets, etc. In their case also the practice of issuing arms with damaged strikers should be stopped, and at any rate a proportion of serviceable weapons issued for the use of the N.C.O.'s. With such a division the status of the officer of the senior division might be raised, thus bringing in a better class of man, and I should suggest that he might be allowed to rank with, but junior to, the Territorial Force officer of the same rank; further, with the introduction of promotion examinations, he might be carried on the Unattached List of the Territorial Force, as are Officers' Training Corps officers, with a liability to be drafted into the Territorial Force in the case of emergency.

Such a division would go a long way towards allaying a certain amount of feeling that has been raised by the recognition of such organizations as the Church Lads' Brigade, a recognition that, in the opinion of many experienced Cadet officers, has done much to hamper the movement. Some of the reasons for this objection are as follows:—(1) In many small towns where a Church Lads' Brigade Company exists, they offer the very greatest objection to any undenominational Company being raised, with the result that if the town is not large enough to support two Companies, a large proportion of boys is lost to the service; (2) the organization of the Church Lads' Brigade, which makes the Vicar of the parish senior to the officer commanding a Company, is fatal to military discipline, and in the matter of promotion the Bible Class boy always wins over the otherwise good soldier; (3) while some Church Lads' Brigade Cadet Companies, which have a good commanding officer and a non-interfering Vicar, are up to a proper Cadet standard, some are merely organized lads' clubs, with a paper strength. Owing also to the fact that in many cases no care is taken to see that the Cadet regulation is complied with, which lays down that before a commission is granted the applicant must satisfy the Association that he is capable of imparting military instruction, many Church Lads' Brigade officers holding Cadet commissions have not even the slightest knowledge of military drill or duties, as, for instance, the Captain who rendered the command "Slope arms" by "Guns on shoulders."

For these and many other reasons I could give, I think it is self-evident that some division in the Force is necessary, and that it is absurd to treat officers of such corps as the 1st Cadet Battalion King's Royal Rifles, 1st Cadet Battalion Royal Fusiliers, and of the Civil Service Cadets on the same equality as Church Lads' Brigade officers. If such a course is continued there will certainly be friction on any occasion where Cadets come together, and where the militant parson Major of the Church Lads' Brigade finds himself senior to the

undenominational Cadet officer, with perhaps years of Volunteer and Territorial service behind him.

Lastly, among the needs of the Force, and undoubtedly the most important, is the need of advertisement. The possibilities of the Cadet movement are unknown and ungauged, for the simple reason that the general public are ignorant of the existence of the Force. Even Sir Ian Hamilton the other day, when writing on the training of boys, spoke only of school Cadet Corps, which have now practically ceased to exist, having been merged into the junior Officers' Training Corps. If a Cadet Force is required by the State, and there can be no doubt of its necessity, both as a recruiting agent for the Territorial Force, and for its moral and physical benefits, it is absolutely necessary that it should be advertised by the State, and given at any rate an equal chance with the Boy Scout movement. There are in England to-day thousands of men and boys who would be only too glad to take a part in such a work, if they knew, firstly, of its existence, and, secondly, that it bore the hall mark of State approval.

THE BOY SCOUT MOVEMENT.

From remarks I have already made, it will perhaps be considered that I am to a certain extent hostile to the Boy Scout movement, and I must confess that in certain respects I am. Instead of grappling with the boy of from 14 to 17, the movement has attracted into its ranks the lads of 9 to 14, and has given way to the desire for a uniform, which exists in every boy at too early an age. It has, moreover, set before them a programme which includes the most interesting parts of military work, leaving the dryer, but more essential, portions alone, with the result the Territorial and Cadet Force are robbed of a great part of their inducements. It has attempted to give these boys a programme which not even the best of men could cover in a lifetime, with the result that the average Boy Scout is being taught to run before he can walk, and he is often a splendid example of the old saying, "A little knowledge is a dangerous thing." Again, in some cases, men, ignorant of the mere rudiments of scouting, and who should be serving in the ranks of the Territorial Force, are placed in charge of these boys, and by them a totally wrong idea of discipline is implanted in the minds of the lads. In addition to this, by a well-planned scheme of advertisement, the Boy Scouts have secured the public purse, and while Cadet Corps find it most difficult to exist for want of funds, the Boy Scouts, by whose scout law begging is forbidden, have more than sufficient for their needs.

I am prepared to admit that the Scout training conducted on somewhat less ambitious lines is good for the boy of from ten to fourteen, but at that age he should be passed on to the Cadets, and a complete chain of service established.

At the same time, as the Scouts have declared themselves to be a non-military body and purely a peace organization, I consider that the practice should be stopped of allowing them to take part in functions with Regular and Territorial troops, a privilege which this peace organization is always trying to obtain. At the present time, mainly through ignorance, many Territorial units are giving facilities to Scouts which are denied to Cadets, although the very *raison d'être* of the latter is to support the armed forces of the Crown.

The Dominions have given us a lead as regards Cadets, and with a strong War Office backing, I submit that it will be quite possible to raise a national force, that shall not only work wonders in the physique of the coming generation, but that shall solve once and for all the question of recruiting for the Territorial Army.

I have said nothing as to compulsory Cadet Service, but I would point out that if once the nation is shown the advantage of Cadet service by means of a strong and efficient Volunteer Cadet Army, it will be infinitely easier to make it realize the greater benefits of compulsory Cadet service.

DOMINIONS WITH COMPULSORY CADET SERVICE.

AUSTRALIA.—All male inhabitants of Australia who have resided therein for six months and who are British subjects, are liable to be trained from 12 years to 14 years in the Junior Cadets, from 14 to 18 in the Senior Cadets, from 18 to 26 in the Citizen Forces; but except in time of imminent danger of war during the last period the service shall be limited to one registration or one mustered parade in each year. All male inhabitants of Australia who have resided therein for six months and are British subjects, and who are between the ages of 18 and 60 years, are in time of war liable to serve in the Citizen Forces.

NEW ZEALAND.—All male inhabitants of New Zealand who have resided therein for six months and are British subjects, are liable to be trained from 12 years to 14 years of age, or on the date of leaving school, whichever is the later, in the Junior Cadets; from 14 years or the date of leaving school to 18 years, or in the case of those who on attaining the age of eighteen years are attending a secondary school, then to the date of their leaving school, in the Senior Cadets; and from 18 years or the date of leaving a secondary school to 25 years in the general training section or the Territorial Force, in the case of their transfer to that force, and from 25 to 30 years in the Reserve. The Militia of New Zealand includes all the male inhabitants of New Zealand between the ages of 17 and 55 who have resided in New Zealand for a period of six months, and all these persons are liable to be called out in time of war.

APPENDIX.

1st CADET BATTALION OF HAMPSHIRE.

Hon. Colonel: the Hon. Sir H. G. L. CRICHTON, K.C.B., C.V.O., A.D.C.
(Chairman, Hampshire Territorial Force Association.)

Commanding Officer: LIEUT.-COLONEL CARLETON LOGAN.

COMPANY.

Smart Active Lads

Between 14 and 17 years of age are invited to join the above Infantry Corps at once. There will be an entrance fee of 5s. towards cost of Uniform, and a subsequent annual subscription of 2s. 6d.

RECRUITS are expected to complete not less than 30 drills for the first year, exclusive of Camp, with a minimum of 20 drills in each subsequent year.

CADETS of at least one year's efficiency who join a Territorial Battalion within six months of leaving this Corps may be excused Recruit Drills and their Cadet Service then counts towards Territorial Force Efficiency Medal and total Military Service.

FORM OF AFFIRMATION.

(To be filled up and sent to

I solemnly promise to serve in the 1st C.B. Hants for Twelve Months from this date.

I will obey the Orders of my Superior Officers, and do my best faithfully to uphold the Cause of King and Country.

Signed

Address

Date

Date of Birth Height ft. in.

Present Occupation—if any

Signature of Parent or Guardian approving above

Regimental Number assigned

Signature of Officer Commanding Company

GOD SAVE THE KING.

RECORD OF PROMOTIONS, &c.

Promotions.	Badges, Certificates, &c.
.....
.....
.....
.....
.....
.....
Character
Date of leaving
T.F. Unit joined

DISCUSSION.

Lieut.-General Sir R. Baden-Powell, K.C.B., K.C.V.O.: I only ask to rise for one moment on this occasion because I have to be at another place. But the Boy Scouts have been referred to in the course of this lecture. I may say I do not propose to lecture to you again on the subject of the Boy Scouts; but only to say I am very sorry indeed to find them "dropped on." I am relieved to find that the Lecturer is not very well up in their aims and in the results which they have achieved; and therefore I can let that pass. But I think that what is nearest to all our hearts is to find some system for promoting the efficient defence of this country. The Boy Scouts do not come into that at all—directly. To bring them in as part of the Cadet force is a mistake, because we particularly avoid a military training; we have a higher aim, that of citizenship only.

THE RIGHT SPIRIT FOR CADET CORPS.

But as regards the Cadet force, I am only emboldened to speak because I happen to have returned from a trip to other parts of the Empire, where I have seen the Cadet system at work—in Australia, New Zealand, South Africa and Canada. Therefore perhaps a word or two from me on that subject may be of interest. I was delighted with the Lecturer's opening remarks, in which he spoke of the right spirit being the important thing to get in the case of such an important branch of our Services. I only wish he could have dilated a little more on how you are to get that spirit. It depends so enormously on the officers whom you employ in the movement. There lies the key to success, and there is the explanation if there is failure in any force which you like to get up. The point is how shall you get the right class of officer, and how shall you train him. I believe that for Cadet corps you want a better class of officer even than for the grown-up force, if you are going to make them useful feeders. I do not know how you will do that. Training in the right spirit, and to a right conception, is the essential to my mind. And if you have not any definite plan, or any scheme for doing it, you may as well abandon the whole thing.

The Lecturer has alluded to the system in Australia, in connection with the Cadets, which is universal there. When I was in Australia

this last year, I saw a good deal of those Cadets, and I saw a good deal of them in New Zealand too, where I had the privilege of inspecting 15,000 of them at ten different centres. And I saw the Cadets in South Africa. In one of the Overseas Dominions during the past year, 10,000 Cadets have been before the magistrates for minor offences against discipline; that is one Overseas Dominion alone. That, I think, definitely speaks of a want of proper discipline, a proper spirit, and proper officers. It is a warning. If we are going to take up Cadet work here on a large scale, you must get over that danger of having the wrong kind of officer and the wrong kind of spirit. I heard from New Zealand this morning, on my way here, that the Junior Cadets, which were universal, have just been abolished. Schoolmasters were the officers of that corps, and they wore the uniform, and swords, and adopted military rank, with the idea of putting a martial spirit into the boys. Parents do not like it as a part of school education; and, remember, it is the parents you must reckon with and have got to consider; also with the Clergy, and the Nonconformist conscience, and all those things. It is no use expecting to be able to go against them; we must have the people with us. That has been a difficulty in New Zealand in connection with the Junior Cadets, and they have had to be abolished.

In South Africa also difficulties have arisen over parental objection to Cadet training.

I was also in Russia, which has, perhaps, the largest establishment of Cadets in the world. And I spoke to a high authority on the subject, and he said they had adopted the Boy Scout training there for their Cadets because, while they found Cadet training all very well, they found that with its purely military discipline it was not one to supply soldiers such as gave confidence to the generals in the field. They had had to adopt the Boy Scout training to put the spirit into the lads, because you must have the right spirit as a foundation for making efficient soldiers.

That is what I want to urge upon you. How are you going to get the right spirit into the boys? Drill, which is really the outward veneer, will come easily enough afterwards, but is of no value as the first step. Of course, a great number of those who have never had to do with war or the training of soldiers have that fetish in their minds that as long as you drill a man, he will make a good soldier. That is a disastrous idea to carry away with you. We had plenty of experience of that in the war in South Africa, and we have had it in every war that has ever been; that a drilled machine is all very well on the parade ground, but what is really wanted is an intelligent fighter in the field, a man with pluck, self-reliance, self-confidence, a man who will obey his officers. Then the drill matters very little. If we ever wanted proof of that, we had it from our late opponents in South Africa; they were thoroughly good fighting men. They had their own way of getting about the country; they could use their wits and their common sense—and, after all, common sense is the essence of tactics. They had everything that went to make good soldiers, except that they did still want the proper leading by good officers, and that discipline which comes from confidence in their officers. They were naturally-made soldiers; they only wanted the veneer of drill and that sort of thing, as a final polish. And if we could train our men on those lines, put the right character into them as a first step—the spirit of self-reliance and readiness, and then add the drill on to that, then we should make good soldiers.

It is no good to take the poor product of our streets and board-schools and drill him, and then think you have in him a soldier. He will march past all right and look well on parade. I implore you to think of the poor generals who have got to lead them in war. If you persist in having such soldiers you will have to breed another kind of general. If you stick to your old form of training, you want generals with more pluck than most generals possess to take these half-baked men into action and be willing to sacrifice them because he has got no better. A general cannot adapt his tactics to those of the enemy unless he has the right sort of men. In South Africa generals had to adapt their tactics not to what the enemy did, but to what the ill-trained officers and men under them were capable of. The men came out anxious and willing to do their best, but it was limited by the amount of confidence they had in their own efficiency and that of their officers, which was not very great. And therefore I regard those as the points which are necessary to be thought out before you make sure of the lines on which to deal with your forces. See that your officers are good, such as the men will follow to the death; see that the right training and the right spirit are adopted in the first instance as your foundation; and that the veneer of drill comes quite secondary to that.

And now a parting word to the Lecturer, because I have had a lot of rough-and-tumble in these matters; I have had to do with Cadets before, and other organizations too. I would suggest to him not to fight with Church Lads' Brigades or Boy Scouts, or Boys' Brigades, or any other of these organizations. He should be willing to look upon the whole thing as an amateur concert in progress, and abstain from throwing things at the pianist, who is doing his best—and here I liken the Boy Scouts to the pianist. Some boys like to join the band and to blow the more military bugle—as Cadets. The various boys' organizations are working on different lines, but for the same thing. What will suit one boy may not suit another, and one organization will take one lot of boys, and another organization will sail in and take another lot. We should all work hand-in-hand for the same end, and between us rake in everything in the shape of a boy.

In the Boy Scout movement we are in reality helping the Cadets, since we are trying to put the right spirit into the boys to be good citizens and thus incidentally giving them the best foundation for making efficient soldiers and sailors as well as civilians. If the Lecturer only knew the actual results he would know that a large percentage do go into the Territorials. The percentage of Cadets doing so was less, because by the time they arrived at the age at which they were eligible for joining the Regular forces the attractions of drill and military uniform had to a great extent worn off. No doubt the improved training such as the Lecturer suggests would result in the getting of a larger percentage of Cadets to join the regular forces, and I only hope that will be so. But I have every confidence that our Scout methods may help him in training them. Our one aim is to put the right spirit into the boys, and I believe that in doing this we shall be able to help the Cadet force in the most effective way.

Rev. W. B. Dowding (Chaplain to the Forces, Warley, Essex): My reason for speaking is, that I have come to the same conclusions as Captain Atkinson in regard to most of the difficulties in connection with the Cadets. I have been running a Garrison Cadet Company for one-and-a-half years on purely military lines. The Church Lads' Brigade

Cadets' position is an unfortunate one. It makes a sort of second-class Cadet, and perhaps brings difficulties into the whole matter. I have worked them simply as a Boys' Cadet Corps; and what I have felt is exactly what the Lecturer has expressed; that we have to work with an absolute absence of any interest or care from those who, by their position and appointment, should have given the utmost.

I cannot detain you long enough to enable me to go through the points I should like to. The Lecturer mentioned £5 a year given by the War Office to each company, and I should like to say that that money goes into the hands of the Territorial Association, and not one single penny has been paid out to any Corps that I know of, yet they have done all the work, and provided all the money. I think, therefore, you will realize that there is something like a reasonable ground for our feeling that we have been treated badly. At this moment I am £7 or £8 out of pocket for having trained a "poor boys" company of Cadets. I have Roman Catholics and people of all faiths, and I do not ask them what they are; but I tell them I expect them to do their duty to their country, and to their particular Church. I have provided 60 Cadets with uniform, but I do not think it can be possibly carried on in this personal way. With regard to the difficulties connected with the Scouts, I may say I am a Scoutmaster. I know the Scouts' good points as well as I know the hindrances that they are. Their discipline is absolutely shocking. What the Lecturer said, about anybody who is willing to do it being appointed Scoutmaster, is most true. The recognition which they get from officers and from Territorial Associations, gives the impression that they are a form of soldier, and that does much harm. If they would take boys from nine to twelve years of age, and give them an elementary training in various ways, and make them useful, I would wish them success. But having got them to 12 years of age, they will not let the boys go on as military Cadets. Therefore I think the Lecturer is quite correct in what he said about the difficulties connected with the Boy Scouts. I would like to make this suggestion. If these "recognized" Cadets—and I am only speaking of recognized Cadets, such as the Warley Garrison Cadets, affiliated to the 4th Battalion Essex Regiment—are of value, let that value be put into pounds, shillings, and pence. If the War Office recognizes them because they are of use, let the Territorial Associations pay for them. Why should you expect a working boy, whose mother is perhaps a widow, and who is only earning a few shillings a week, to pay the cost even of his outfit? As things stand at present, there is a pretence that the Cadet is useful and necessary; yet nothing is done to provide the cost. If the boys were paid only a penny for each drill at the end of the year, on condition that they pass a certain standard, you might raise a large number of Army Cadets. I think that in every Regimental Depôt there should be a Cadet company under Depôt officers. Whenever the time of difficulty comes, you will find a number of young men so trained as boys in drill and musketry who, on the word of command, will be able and willing to do their part.

Lient.-Colonel W. Campbell Hyslop, C.B.: I confess that Mr. Dowding has brought me to my feet in relation to what he said about County Associations and Cadets. I happen to be Secretary of the City of London Territorial Forces Association, and I can only hope that Mr. Dowding's experience has been a singular one, and that it does not apply in many places. In the City of London we give 80 per cent. of the grant received from the War Office direct to the Cadet unit, as Sir William Watt knows.

And we have one staff officer of the Association who deals directly with the Cadet units. He knows every officer, and conducts the staff work from day to day, in association with the Commandant. We have two Committees who deal with Cadets; one Committee purely of the City Association, and a Joint Committee for the City and County of London. So that in London, at least, I do not think we can be reproached in this matter.

What the result may be, and whether it will be satisfactory, is another question. I do not think it is satisfactory. The Cadet question is not thorough enough; it does not go far enough; it is not broad or deep enough; it has not touched the soul of boyhood yet. It is only nibbling at the schools. If we are to have a Cadet service, it should be wider and more general.

To-day we have had expounded to us the benefits of the Boy Scouts and of the Cadet system, and they appear to be complementary to one another. I do not think, as things are at present, that we shall see in the near future a compulsory Cadet service in this country. However much we may admire it in our Colonies, we must admit that, although the public is being educated towards that point, they are not ready for it yet. Only a few days ago the Minister for Education said he would have nothing to do with any system of military drill in any of the elementary schools.

Let me tell you what has been happening in another direction. There is a Mansion House Committee, which is representative of all the training organizations of boys, now numbering 280,000, in the United Kingdom. The other day this Committee met representatives of six Departments of State, and said to them: "We can speak practically for all the training organizations for boyhood in the country, and you Secretaries of Departments of State are dealing with the boy at some stage or other in his career; you are dealing with him for education, for employment, for the Cadet service, and the Home Office for industrial training, etc., but you are not dealing with him comprehensively amongst yourselves; and what we say to you is: 'Is it not time for you to come together and form a Central Advisory Committee of the State, which shall deal comprehensively with this question of the boyhood of the nation?' And you may very well say to these representative organizations—Cadets, Boys' Brigades, Boy Scouts—if they accept certain standards of training peculiar to themselves, and come up to prescribed efficiency, that the State might depute to them this voluntary training, apart from their school career?" It is on all fours with the principle that exists in the Army under which the Cadet force accepts certain standards, and is given "recognition." We ask, Why should not the State, as a whole, give official recognition to all these educational organizations—Boy Scouts, Boys' Brigades, Cadets—all who are working towards the same goal? That is the proposition which we have put forward, and which, within a week, is to be considered by three Departments, those most responsible for them.

Dr. T. Miller Maguire, LL.D.: I have some experience, at any rate of volunteering, and I have some awful experience of the Territorial Forces; and I agree with the reverend gentleman that the manner in which our State authorities go about asking for support for the Services from all classes of people, and asking everyone except the State to contribute to particular experiments and enterprises, is nothing more or less than a scandal. If A, B, C, shopkeepers, and G, E, F, bankers, and H, a butcher, will get all the advantages of the reverend gentleman's Cadets,

I cannot at all make out why the reverend gentleman, in addition to giving the valuable and extremely ill-paid time of his profession, compared with political barristers and similar folk in the same State, should go on giving money, while these other people are giving nothing at all. With regard to the supposed lack of harmony in the meeting with regard to the different corps, I can only say I did not observe it. I would like to add in regard to what General Sir R. Baden-Powell said, as the Lecturer said, you cannot be two things at the same time; you cannot be a private and an officer at one and the same time.

There is no doubt it is a terrible thing that the volunteers should be replaced by people who were joining for what they "could get out of it"; that will never do. I am not surprised at the reverend gentleman's indignation at the extraordinary apathy, which is the ruin of the whole enterprise, Territorials and Cadets and Regulars. But General Sir Robert Baden-Powell spoke about the supply of officers. We were asked, and we were begged by the authorities, to educate the Territorial officers. I, having served 16 years in the Forces, and having spent perhaps even more money than the reverend gentleman, was asked to provide non-commissioned officers and officers with instruction and to bring patriotic gentlemen, lay and military, to a school for the purpose. In an evil hour I did so, and what is the result? I am nearly bankrupt, and some of my professors are altogether ruined. They have started a Territorial War School, but officers did not want to pay, and they did not want to be educated in the principles of strategy or of tactics. They did not come, and I am here in consequence, listening to the admirable instruction of the Lecturer.

I asked the Japanese Baron Sumeyatsu in 1904 to tell me the kind of education which would best supply plenty of officers; and how, when they got them as young men, they trained them as officers. And he wrote an article which the *Westminster Gazette* published. And therein he sets forth the education of an officer; the spirit of an officer, the soldiering of an officer, and the tactical training of an officer; and, at page 149 of the *Risen Sun*, the winter and scientific training of an officer. I strongly advise everyone to take and study this marvellous volume. These are the means of success, and they were a success in that war against Russia. But you could not get these officers out of a nation which lacked the spirit of honour, the spirit of patriotism, or the spirit of self-sacrifice. And he proved that before that epoch the Japanese had honour, the people worshipped God and the spirits of their ancestors, and they worshipped their country. Speaking of the patriotic spirit in schools, Cadet and officers' training schools, "universal service is the only true principle," says this brilliant Japanese Baron; and he asserts it makes "the spread of the patriotic as well as the martial spirit more feasible in every school, because the system makes every boy expectant of becoming a soldier at some time or another." Teach the boy that, and he will go into the Cadet school. At page 146 he says the system helps the spread of intelligence among the people at large. If the people are not intelligent enough to know that England may sometime be beaten by somebody, and that it is not desirable that we should be beaten, they will not be very brave soldiers.

Our idea dispenses with the necessity of employing all sorts of devices to induce men to enlist under the National Flag. Sumeyatsu proves also that the system does good with regard to the physical development—and I could go on reading a great deal more, but it is not fair for any speaker here to take up so much time of the audience.

Major-General Sir John Moody: I have listened with interest to the lecture we have just heard, and we should be much obliged to the Lecturer for his effort to create a public spirit in the direction of training boys. The Cadet movement, we are told, has not so far met with the success which was anticipated.

I quite agree with Sir Robert Baden-Powell in his remarks that all the standard organizations for boys should certainly cordially work together for the best interests of the country as well as for the interests of the boys. I was disappointed that the Lecturer made no mention of the largest and the oldest of the boy organizations, *i.e.*, "The Boys' Brigade." As I have been intimately associated with this most successful body I can bear testimony to the success of its methods. Founded in 1883 by Sir William Smith and starting with only 30 boys, it now numbers about 65,000. It turns out at the age limit of 17 a fine body of youths, some 15,000 annually; all qualified for the Territorials without needing preliminary drills. Glasgow, the birthplace of the Brigade, mainly relies on the Boys' Brigade for its Territorial recruits. I would invite those who are present this afternoon to go down to the Albert Hall on the evening of May 1st and witness the annual demonstration of the Boys' Brigade—some 3,000 boys will be present, mainly from London battalions.

Mr. Douglas H. Macartney (Captain 1st Cadet Battalion, 1st Home Counties Brigade, R.F.A.): Having spent a considerable part of my time in dealing with this question, I would like to say that this compulsory Cadet service will come, I think, very much sooner than we expect. And as an instance of how much attention the Board of Education are paying to it, I may say that I wrote on Sunday night, and received a reply on Monday. That shows that the Government are not letting things go slowly. And I have reason to believe that with a body of public opinion in Parliament this matter will come to pass.

MILITARY DISCIPLINE.

I would not detain you at this stage, as it is rather late, but I hope to make some remarks as to what I have been able to do in the past few months at the Conference at the Guildhall. I would like to say how much we admire the Scout movement; and I think the best troops in the Scout movement are the troops who have had the military training. I have been to Scotland and all over the country, and I have asked the Scoutmasters themselves. I have said, "You seem a nice smart lot of boys, but, if you do not mind my saying it, I don't think you ought to give the boys orders in military terms." "Why not?" My reply was, "You are not obeying what your Chief Scout tells you." The Scoutmaster then said, "The Chief Scout may tell us this, but we must have discipline, and the only discipline we can get into the boys is that which I know is best." This man had been in the Army, and the best troops of Boy Scouts are those commanded by ex- or present military officers, in either the Territorials or the Regulars. What is the cause of the wonderful success of the Church Lads' Brigade? It is the military discipline in their drill; it is not so much the religious side, which is equally important; it is their military drill which has made them such a success. As for General Sir Robert Baden-Powell saying that military training is not wanted, I think there is a certain amount of opposition as shown in the Headquarters Gazette, which is against that view. But I repeat there is room for the Cadet movement and the Boy Scout movement, training the boy to be a Boy Scout first of all, giving him a moral kind

of training, and at another age passing him into the Cadet ranks. Then you have good material to start with. We do not want in the Cadet ranks the average boy who goes about with a broom-stick; we do not want him until he has completed his training in the Scouts. When he has done well there, we want to get him into the Cadets. In that way we have good material to start with. I do not think every boy would be fit for a Cadet, nor that every man would be fit for a Territorial; it would be against their temperament. A boy who hates the very word "War," or anything of that sort, should remain a Scout. But there is room for everybody. The boy who prefers to do scouting, let him remain in the Scout movement. But there are many boys now in the Scout movement who, if a Cadet system were established, would go into it to-morrow. That I am equally certain of.

The Lecturer said that the Scout movement has plenty of money to spare—but I am sorry to say they have not; they are somewhat hard up. And I would ask how a khaki uniform can be got for ten shillings which will last four years? If I had a khaki uniform given to me when I was 14, by the time I was 17 my sleeve ends would be at my elbow; I hope the average British boy would grow as much. And I think ten shillings is a rather low estimate.

General Baden-Powell said ten thousand Cadets were brought up in one Dominion before the magistrates. I think it will be found these were mostly on minor points, such as for not registering themselves; and such a thing would happen in this country for that omission, or any other. I do not agree with him when he talks of Nonconformist people and Quakers, and others. That is a great stumbling block to the progress of this movement. The Labour Party to-day is a block to this Cadet movement. I have got one man on the Labour side to support this Cadet scheme; that is Mr. Will Crooks; but you have to be careful how you go with them. I think if a boy of 15 or 16 is prevented joining the Scouts, he is thereby deprived of the chance of showing what he is made of. Such a boy is prevented from becoming a good citizen, and I do not think it is right, as the parents have had their chance. I personally go round to the working-class people of Paddington as much as I can, and I try to get the youth of the country to join something, whether it be the Cadets or Naval training, to join a movement which is most likely to benefit the particular individual.

The Lecturer, Captain T. Atkinson, in reply, said: Sir William Watts has asked me to answer just one or two remarks that have been made. When I saw myself opposed by Sir Robert Baden-Powell I felt like a man who, with a toy pop-gun, was expecting to knock over a Brigade of Guards, but on analysing what he said it is clear that he is one of our greatest supporters. He says that the key-note is the officer, and in this I thoroughly agree. I said in my lecture, if you will remember, that I should propose to take an entirely new class of man, who does not want to serve in the ranks, and among these you will get hard-working fellows; and we have proved it. I said only the other day to the adjutant of the Cadet battalion to which I belong, "So and So must do more work or else he must go." To which he replied, "Have you realized, Sir, that these men are doing ten times as much as the Territorial officers and without any pay whatsoever?" It is true you must get the best men; but if you are going to be enthusiastic, and the Government backs up this movement, you will have no difficulty in getting the men.

I agree so far with Sir Robert that we want to combine the best part of Scout training with military drill; that happy blend will produce the ideal Cadet training.

One gentleman asked about County Associations. My experience is that the present system is one of faulty organization. We in Hampshire have a County Association in which the Cadet interest as such is not represented. I myself sit as a Territorial not a Cadet officer.

The only thing I can say about the five pounds grant is, that it is given to the County Association for the furtherance of the Cadet movement and in that respect to use as they think best. Provincial ones, generally speaking, do not hand it over, and I recommend the reverend gentleman who spoke on the subject to sit on the County Association door-step until he gets it, as I have done.

Sir John Moody mentioned the Boys' Brigade. I am aware of the excellent work done by the Boys' Brigade, but I purposely refrained from mentioning them because they have not accepted the Cadet regulations, and so they do not come into the scope of my lecture. Unlike the Church Lads' Brigade they have not come into the Cadet Army. The Boys' Brigades have been true to their principles, and they have kept aloof, remaining a social organization, and we respect them as a separate organization and one not officially recognized.

The point was raised by one speaker that if a boy had clothing at 14 he could not use it by the time he was 17. Evidently he has not had to find ways of doing things. Has he never heard of a larger suit being given to a boy when he is older and handing his small one on to a smaller boy? He would learn these tricks if he had to do as we do in Hampshire.

We must have advertisement if we are going to make the movement a success. In the battalion I belong to we are 500 strong; and you will scarcely believe me, but the subscriptions to that battalion up to the present are only £38 from the time they were started; yet it is now practically clothed and equipped. Boxing shows, bazaars, concerts, etc., have been resorted to to get money. If in a county like Hampshire you can find 500 boys who will pay for their soldiering, then with Government help and proper backing, and not asking the boys to put their hands too far into their pockets, you can get thousands first into the Cadets and then into the Territorial Army. I still think if a boy contributes a little, he will appreciate what he gets the more.

The Chairman, Colonel Sir William Watts, K.C.B.: On your behalf, I rise to move a very hearty and very sincere vote of thanks to our Lecturer for his most practical lecture. I believe a great value of a paper is to promote a good discussion, and the greatest compliment to a Lecturer is for a good and lengthy discussion to ensue. We have had that to-day, and I hope we shall soon get some practical results from it. Arising out of the lecture, there are one or two points I would like to touch on.

THE NEED OF A NATIONAL MOVEMENT.

The first is the remark of the Lecturer as regards County Associations. I fully endorse the words of Colonel Hyslop in regard to the City of London and the County of London in their administration. They are far advanced—I think perhaps with the exception of Hampshire—with regard to the administration of the various areas. In many of the counties, the Cadet question is absolutely unknown; and I look forward, with hope, in future years, to seeing every Territorial battalion have its accompanying Cadet battalion, or companies, in proportion to the Territorial battalion.

And I think that can be done. But the question of its success is this: either the Cadet movement will have to be a national one—that is everyone, without favour, of whatever profession or creed, to put a shoulder to the wheel—or otherwise it will have to be, as now, a voluntary one, with far more appreciation and assistance from the War Office than it has received. Is the Cadet force worth keeping up, or is it a detriment to the country? I can speak from an experience of twenty years with Cadet battalions, and I can assure you that they have justified their existence, both as recruiting agents to the Regulars, and to the Auxiliary Forces, and also as organizations for promoting the best principles of citizenship, and for improving the physique of the manhood.

THE STATUS OF CADET OFFICERS.

They have had many difficulties; one of the greatest they have had is that they have been kept up by private enterprise; every corps has been run on its own style, and each commanding officer has had his own rules. And I am of opinion that that is a bad thing. I think the different battalions should be run on similar lines. The other three difficulties we have to contend with are: first, as to the officers. I agree with what General Baden-Powell said, that you must instil the best principles into the characters of the boys. But if you are going to do that, you must get the finest class of officer to do so. I do not think Cadet officers have been served quite fairly, considering the responsibilities which are thrown on their shoulders, the time they have to give, and the out-of-pocket expenses. We know Officers' Training Corps which are connected with the large public schools of England. Their officers have no worries as to getting the boys; nor yet worries in connection with obtaining the sanction of the parents, nor in regard to uniform. Yet the War Office has thought fit to give them the honour of a Territorial commission. Let us take the senior Cadet battalions in England affiliated to Line regiments. They have had to keep up these corps, with the various bands and other expenses; to keep these boys well equipped with uniform, and a credit to the battalions to which they belong; to give their time and outdoor expenses, as well as indoor expenses, and the officers' uniform expenses. What do they get? Not a Territorial commission at all. If they were given that honour, it would be a stimulus for a better class of man to come forward and take the National Cadet movement in hand.

What is another difficulty? The parents. Many parents are against their sons being trained to be soldiers, as they term it. I have had many instances where that objection has been made. One person told me that my action was a national calamity. I asked him what he meant. He said: "Training boys of 14 to 18 years to be soldiers; they should be men of peace, not of war." I replied: "I imagine you are a peaceful man, and you want to have your country in a state of peace, not of war?" "Yes," he answered. Then I said "Allow me to give you one solution of that: to preserve peace, in this or any other country, you must be prepared for war, and your son must take his part to help in these duties as a good citizen." If our country is to maintain the responsibilities which we all have and which we inherit, namely, to maintain the Empire and defend our shores, everyone must put his shoulder to the wheel. This must be brought home to the British public, and the method by which it should be brought home, is for the boys and youths of the country to be educated up to their responsibilities and national duties.

THE "SHANNON" AND THE "CHESAPEAKE."

(June 1, 1813).

By CAPTAIN H. J. G. GARBETT, R.N.

DURING the naval wars of the 18th, and early part of the 19th centuries, there were many noteworthy single ship actions, in which, with scarcely an exception, we were the victors; while between 1793, when hostilities broke out with France, and May, 1812, when the United States declared war against us, out of 200 actions between single ships, we were only defeated five times, and on each of those five occasions our vessels were of inferior force to the enemy. It was therefore a source of considerable mortification and disappointment, when during the first six months of the war with the young Republic, our Navy suffered five consecutive and overwhelming defeats at the hands of American vessels, although it must in justice be said that, on four out of these five occasions, our ships had to face superior odds. There was thus a more than ordinary desire on the part of our officers and men to retrieve the honour of the flag, and among the captains of the British 38-gun frigates, none longed more ardently for a meeting with one of the American 44-gun ships, than Captain Philip Broke, of the "Shannon."

The "Shannon" was one of the most efficient ships of her class afloat, a distinction due entirely to the efforts of her commander, who, at considerable expense to himself, had trained his men to a state of the highest proficiency. Yonge, in his Naval History of Great Britain, says: "From the time that Captain Broke assumed command of the 'Shannon,' he had carefully trained her crew in gunnery, and in every other exercise calculated to make them really efficient in the day of trial."

On March 21, 1813, accompanied by the "Tenedos," a sister-ship, Captain Hyde Parker, the "Shannon" left Halifax for a cruise in Boston Bay. On April 2, the two frigates reconnoitred the harbour of Boston, and saw the "President" and "Congress," the latter quite, and the former nearly ready for sea, while a third ship, the "Constitution," was laid up undergoing serious repairs. Captains Broke and Parker, having resolved, if possible, to bring the "President" and "Congress" to action, the "Shannon" and "Tenedos" took up a station to intercept them. It was in this interval that the "Chesapeake," returning from a cruise on the coast of South America, managed to elude the blockaders and get safely into port; while on May 1, foggy weather and a sudden favourable shift of wind enabled the "President" and "Congress" to elude the vigilance of the two British frigates and put to sea. As two frigates were not required to attack one, and as the appearance of such a superiority would naturally prevent the "Chesapeake"

from putting to sea, Captain Broke, on May 25, detached the "Tenedos" with orders to Captain Parker not to rejoin him before June 14, by which time he hoped the business with the "Chesapeake" would be over.

The two ships were not unevenly matched, the "Shannon" carrying 48, and the "Chesapeake" 49 guns. The armament of the "Shannon" consisted of 28 18-pounders upon the main deck, and 16 32-pounder carronades, with four long 9-pounders upon the quarter-deck and forecastle; while that of the "Chesapeake" consisted also of 28 long 18-pounders on the main deck, with 20 32-pounder carronades, and one long pivot 18-pounder on the quarter-deck and forecastle.

On June 1, early in the morning, having received no answer to several verbal messages sent in, and being doubtful if any of them had even been delivered, Captain Broke addressed to the commanding officer of the "Chesapeake" a courteous letter of challenge, which, in the words of the great naval historian, James, for its candour, manly spirit and gentlemanly style stands probably unparalleled.

"As the 'Chesapeake' appears now ready for sea," so the letter runs, "I request you will do me the favour to meet the 'Shannon' with her, ship to ship, to try the fortune of our respective flags." The "Shannon's" force is then stated, and her complement given as "300 men and boys (a large proportion of the latter), besides 30 seamen, boys, and passengers, who were taken out of recaptured vessels lately." After fixing the place of meeting, and providing against all interruption, Captain Broke concludes thus: "I entreat you, Sir, not to imagine that I am urged by mere personal vanity to the wish of meeting the 'Chesapeake' or that I depend only upon your personal ambition for your acceding to this invitation. We have both nobler motives. You will feel it as a compliment if I say, that the result of our meeting may be the most grateful service I can render to my country; and I doubt not that you, equally confident of success, will feel convinced, that it is only by repeated triumphs in *even combats* that your little Navy can now hope to console your country for the loss of that trade it can no longer protect. Favour me with a speedy reply. We are short of provisions and water, and cannot stay long here."

This letter Captain Broke entrusted to a Captain Eben Slocum, a discharged prisoner, then about to proceed, in his own boat, to Marblehead, a port a few miles North of Boston, from which place he forwarded the letter to Boston; but before it arrived Captain Lawrence had received peremptory orders from Washington to sail at the earliest possible moment. Had he known that the British commander had left the selection of time and place to him, "At any bearing and distance you please to fix off the South breakers of Nantucket, or the shoal on St. George's Banks," he undoubtedly would have postponed the meeting until his men had become more accustomed to act together, and were more proficient in seamanship and gunnery.

As it was, the "Chesapeake" went out to meet the "Shannon," not in response to Captain Broke's challenge, but as if the two vessels had casually met off the harbour. Mr. E. S. Maclay, in his History of the United States Navy, relates that, "Just as the last boat-load of seamen, amid the cheers and hand-waving of the crowd, was putting off from the landing, a negro, who had spent most of his life in Nova Scotia, called out to a friend in the boat, 'Good bye, Sam. You's goin' to Halifax before you comes back to Bostaing. Gib my lub to requiring friends, and tell 'em I's berry well.' The ominous import of this message enraged the people around him, and the negro narrowly escaped with his life."

Shortly after the letter was despatched, the "Shannon," with colours flying, stood in close to Boston lighthouse, and lay to. The "Chesapeake" was now in view, lying in President roads, with royal yards across, and apparently ready for sea, and some 30 minutes past noon she set her top sails and got under weigh, the wind, blowing a light breeze from West by North, being fair. The "Shannon's" men had just gone to dinner and were hardly seated when the words, "She's coming out!" passed like wild fire from one end of the ship to the other, and officers and men hastened on deck to gaze on the welcome sight. Nor were they disappointed. The fine American frigate, now under full sail, was standing down the bay with the ebbing tide, attended by numerous pleasure craft filled with people anxious to witness a naval engagement, and see how speedily an American could "whip" a British frigate, besides a large schooner gun-boat, on board of which were Commodores Hull and Bainbridge, and several other American naval officers.

At five minutes to one, Cape Ann bearing North-North-East-half-East, distant 10 or 12 miles, the "Shannon" filled, and stood out from the land under easy sail. Captain Broke, taking up a position on the break of the quarter deck, now had his men called aft, and thus addressed them: "'Shannons'! You know that from various causes the Americans have lately triumphed on several occasions over the British flag. This will not daunt you. But they have said the English have forgotten the way to fight. You will let them know to-day that there are Englishmen in the 'Shannon' who still know how to fight. Fire into her quarters, main-deck into main-deck, quarter-deck into quarter-deck. Kill the men, and the ship is yours. Don't cheer. Go quietly to your quarters. You have the blood of hundreds of your countrymen to avenge." A dead silence rested over the "Shannon's" deck at the close of these words, and all went to their stations feeling that they had a foe worthy of their steel. Watt, the first-lieutenant, then went forward and placed a white ensign on the capstan, as had been his custom whenever preparing for action, remarking, "That is to hoist over the enemy's colours."

At 1 p.m. the "Chesapeake" rounded the lighthouse under all sail; and at 3.40 p.m. hauled up, and fired a gun, intimating her readiness to begin the action. Presently the "Shannon" hauled up and reefed topsails. At 4 p.m. both ships, now about seven miles apart, again bore away, the "Shannon" with her foresail hauled up, and her maintopsail braced in and shivering, that the "Chesapeake" might overtake her. At 4.50 p.m. the "Chesapeake" took in her studding and upper sails, and sent her royal yards on deck. At 5.10 p.m., Boston lighthouse bearing West distant about 18 miles, the "Shannon" again hauled up, with her head to the Northward and Eastward, and lay-to, under topsails, top-gallant sails, jib, and spanker. "Lawrence displayed great skill and tactics when closing with us to prevent our fire, which, however, we did not attempt, for Broke had given orders not to fire whilst the gallant fellow keeps his head towards us, and so we waited in silence," so wrote the late Sir Provo Wallis, who was the "Shannon's" second-lieutenant, to Mr. Maclay.

At 5.25 p.m. the "Chesapeake" hauled up her foresail, and, with three ensigns flying, one at the mizen royal mast-head, one at the peak, and one, the largest of all, in the starboard main rigging, steered straight for the "Shannon's" starboard quarter. She had also, flying at the fore, a large white flag, inscribed with the words, "SAILORS' RIGHTS AND FREE TRADE"; upon a supposition, perhaps, that this favourite American motto would paralyze the efforts, or damp the energy of the "Shannon's" men. The "Shannon" had a Union Jack at the fore, an old rusty blue ensign at the mizen-peak, and, rolled up and stopped, ready to be cast loose if either of these should be shot away, one ensign on the main stay and another in the main rigging. Nor, standing much in need of paint, was her outside appearance at all calculated to inspire a belief of the order and discipline which reigned within.

For some time Captain Broke was uncertain as to whether the "Chesapeake" would run down under the "Shannon's" stern and rake, or come fairly alongside; but at 5.40 p.m. Captain Lawrence gallantly luffed up, within about 50 yards, upon the "Shannon's" starboard quarter, and, squaring his main yard, gave three cheers. Seeing that Lawrence was about to engage in a fair yard-arm and yard-arm action, Captain Broke ordered the gunners on the main-deck "to fire on the enemy as soon as the guns bore on his second bow port." Allen, in his "Battles of the British Navy," says, "The 'Shannon's' aftermost guns on the main-deck were loaded with two round shot and a keg of 150 musket balls; the next gun had one round shot and one double-headed shot, and so on alternately with every gun on the main-deck." At a quarter before six the bow of the "Chesapeake" began to double on the "Shannon's" quarter and the latter opened fire, one gun after the other, from the after-gun to the bow. The effect of this fire, "as witnessed from the 'Shannon's' tops,

was withering. A hurricane of shot, splinters, torn hammocks, cut rigging and wreck of every kind was hurled like a cloud across the deck." The "Chesapeake" did not immediately reply, but having secured a favourable position, she also delivered her broadside with tremendous effect. Both ships then kept up a furious cannonade for several minutes.

At the first broadside Captain Lawrence, while standing on a carronade slide, was severely wounded in the leg; but he refused to go below, and, supporting himself on the companion way, continued in command of his ship. The firing was so close and rapid that in a few minutes half of the American officers were either killed or wounded. At 5.53 p.m., finding that, owing to the quantity of way on the "Chesapeake," and the calm she had produced in the "Shannon's" sails, he was ranging too far ahead, and being desirous to preserve the weather-gauge in order to have an opportunity of crippling the "Shannon" by his dismantling shot, Captain Lawrence hauled up a little. But as her jib sheet and foretopsail-tie were shot away, and her helm, probably from the men stationed at it being killed, was for the moment unattended to, the "Chesapeake" came up so sharply to the wind as to deaden her headway completely; and the ship lay, in consequence, with her stern and quarter exposed to her opponent's broadside. At this moment the "Shannon" delivered her most effective fire, not only raking the "Chesapeake" fore and aft with her quarter guns and beating in her sternports, but at the same time maintaining a tremendous diagonal fire from their forward guns across the decks of the American frigate; which rapidly increased her list of killed and wounded. Seeing that the ships were about to foul, the boatswain of the "Shannon," who had fought under Rodney, endeavoured to lash the two ships together, but he was mortally wounded before he was able to carry out his intentions; the two vessels, however, remained locked as the "Chesapeake" hooked with her quarter-port, the fluke of the "Shannon's" anchor stowed over the chess-tree.

Captain Broke now ran forward; and, observing the "Chesapeake's" men deserting the quarter-deck guns, he ordered the boarders to be called, threw down his trumpet, and, calling out "Follow me who can!" stepped on board the "Chesapeake's" quarter-deck, from whence Captain Lawrence, mortally wounded, had just been carried below. Here not an officer or man was to be seen. Upon the "Chesapeake's" gangways about 25 or 30 of her men made a slight resistance, but they were quickly driven towards the forecastle, and, not being supported by their comrades below, were soon forced to lay down their arms and submit. While in the act of giving orders, Captain Broke suddenly found himself opposed by three of the Americans, who, seeing they were superior to the British then near them, had armed themselves afresh. In the scuffle that followed, Captain Broke received a blow on the head from the butt-end of a musket, which nearly stunned him, but

his assailant was immediately cut down; and while a handkerchief was being tied round his head, Broke had the satisfaction of seeing the English flag being hoisted over the American, and was instantly led to the "Chesapeake's" quarter-deck, where he seated himself upon one of the carronade slides.

All this time the "Chesapeake's" head had been gradually swinging round, and she now broke away from her lashings and forged across the "Shannon's" bow. This left 50 or 60 of the British in the American frigate cut off from support and retreat, and, had the "Chesapeake" been manned by a thoroughbred American crew, these men might have been overpowered, and the result of the action of June 1, 1813, might then have been far different. To add to the confusion of the English, one of the boarders hauled down the American colours and hoisted them again with the white ensign under instead of over it. Seeing this the "Shannon" re-opened fire, and the first discharge took off the head of her own first-lieutenant, Lieutenant Watt, who was standing on the "Chesapeake's" quarter-deck, besides killing and wounding four or five of their comrades. Before the flags had got half-way to the mizen peak, they were lowered down and hoisted properly; and the aggrieved and mortified men of the "Shannon" ceased their fire. The "Shannon" was now about 100 yards astern of the "Chesapeake," or rather upon her larboard quarter. To enable the "Shannon" to close, Captain Broke ordered the "Chesapeake's" maintopsail to be braced flat aback, and her foresail to be hauled close up. Almost immediately afterwards Captain Broke's senses failed him from loss of blood; and the "Shannon's" jolly-boat just then arriving with a fresh supply of men, he was conveyed back to his own ship.

Thus ended this memorable fight. Between the discharge of the first gun, and the period of Captain Broke's boarding, 11 minutes only elapsed; and in four minutes more, the "Chesapeake" was completely his; but owing to the great loss of American officers, it is doubtful if there was any formal surrender, and it was owing to this also that no one was left to throw the signal-book overboard, although it had been placed on the cabin table weighted, and ready to be thrown overboard.

The welcome news of the victory was carried to England in the brig "Nova Scotia," Lieutenant Bartholomew Kent, which sailed from Halifax on June 12, and arrived at Plymouth July 7. The City of London presented to Captain Broke a sword of honour and the freedom of the City, and he was made a Baronet and a Knight Commander of the Bath. He and his descendants were allowed also to bear the following crest of honourable augmentation, "Issuant from a naval crown, a dexter arm embowed encircled by a wreath of laurel, the hand grasping a trident erect"; with the motto, "*Sævumque tridentur servamus.*" Congress voted a gold medal to the nearest male descendant of Captain Lawrence.

OBSERVATIONS OF A WAR CORRESPONDENT WITH THE BULGARIAN ARMY.

By FRANK FOX.

(Formerly of the Australian Field Artillery, now of the Australian Reserve of Officers; Correspondent with the Bulgarian Army for the *Morning Post* during the Balkan War).

On Wednesday, March 26th, 1913.

LIEUT.-GENERAL SIR EDWARD F. CHAPMAN, K.C.B., in the Chair.

THE CHAIRMAN: Ladies and gentlemen. Before we commence the business of the day, I wish to allude to Lord Wolseley's death, which is a great loss to the whole Army. We all who are in the Army and have been closely connected with him throughout our service, know him as a friend, and know how greatly he devoted himself to our good. Whether in war or in peace, he was a great administrator and a successful general. He will be mourned by us as a great loss. But what I think is hardly appreciated now is the loyal devotion which he gave to the Services and to the country in watching over the affairs of the Army. For about 25 years, when he was closely connected with the War Office, he was really the genius who developed our Army—I speak of the Regular Army—and made it one which we can very well be proud of. I think that Lord Wolseley's memory will live for a long time. More, I think that posterity will know and appreciate the work which he did. We all think of him particularly in connection with this Hall and this Institution, of which he was for a long time Vice-President, and for many years a member. He was intimately connected with all the work which had as its object the education of the Army.

It is now my pleasure to introduce to you an old friend, Mr. Fox. Those of you who do not know him may have read his books, and his articles in the *Morning Post*. I think he has a great advantage over all of us. He is an educated Australian journalist, and his views are always those of one who looks at Imperialism from a point of view that we cannot well regard. I have great pleasure in introducing him, and I hope we shall hear a very interesting lecture.

THE LECTURER: Ladies and gentlemen, in taking upon myself to-day the responsibility of lecturing before the Royal United Service Institution on my observations in the war in

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THE LECTURER: Ladies and gentlemen, in taking upon myself to-day the responsibility of lecturing before the Royal United Service Institution on my observations in the war in

the Balkans, I should like, at the outset, to disclaim any intention of posing as an expert on either strategy or tactics. I shall not attempt to deal with any elaborate theories of war; but I shall give some personal and direct observations on the operations of the Bulgarian Army against the Turks. And my task is simplified by the fact that there has already been placed before this Institution a very clear and very able paper, in which the history of the war, the record of the actual operations, was very fully dealt with.¹ What I have to say this afternoon will, I hope, be taken as, in a sense, complementary to that account, which was not the result of first-hand observation, but a study of the war from the records then available. And, by way of further explanation, I think it is necessary to say at once that in some respects the observations that I have to put before you must be rather slight. It was the general policy of the Bulgarian Army and the Bulgarian military authorities to prevent war correspondents seeing anything of their operations. They wished nothing to interfere with the secrecy of their plans. There were only three British journalists who succeeded, in the ultimate result, in getting to the front and seeing the final battle of the first phase of the war, at Chatalja. There were over a hundred correspondents who attempted to go, and as I was one of three who succeeded, I do not think I, personally, have any reason to complain. But it is necessary to say that the Bulgarian policy—and the right policy—was to prevent any knowledge of their plans, their dispositions, their strategy, and their tactics, from getting beyond the small circle of their own General Staff. Even some of their generals in the field were kept in partial ignorance. Officers of high standing, unless they were on the General Staff, knew little of the general plan; they were informed only about the particular operations in which they were engaged.

THE POLITICAL SIDE OF THE WAR.

First, with regard to the political side of the war. That is the side with which I feel more competent to deal, for that is the side of which I tried to be a close student. One could not but be struck by the exceedingly careful preparation that the Bulgarians had made for this struggle. This was no unexpected or sudden war; they had known for some time that war was inevitable; for they had made up their minds for quite a considerable time that the wrongs of their fellow nationals in Macedonia and Thrace would have to be righted by force of arms. Attempts on the part of the Powers to enforce reforms in the Christian Provinces of Turkey had, in the opinion of the Bulgars, been absolute failures. In their opinion, there was

¹ "The Balkan War and some of its Lessons," by Colonel C. B. Mayne, late R.E. See page 633 of the May number of this JOURNAL.

nothing to hope for except armed intervention on their part against Turkey. And, believing that, they had made most careful preparation, extending over several years, for this struggle. That preparation was in every sense admirable. For instance, it had extended, so far as I could gather from informants in Bulgaria, to this degree: that they formed military camps in winter for the training of their troops. Thus they did not train solely in the most favourable time of the year for manœuvres, but in the unfavourable weather too, in case that time should prove favourable for their war. I think the excellence of their artillery arm, and the proof of the scientific training of their officers, prove to what extent their training beforehand had gone. Most of the officers in high command one met at the front had been trained at the Military College at St. Petersburg, some of them at the Military College at Turin, and others again at a Military College which had been established at Sofia. Of this last-named, the head was Colonel Jostoff, who was Chief-of-Staff to General Demetrieff (the great conquering general of this war), and a singularly able soldier. He was, as I say, the chief Professor of the Military College at Sofia, and judging by the standard he set, the Military College must have reached a very high degree of efficiency.

When war became inevitable, the Balkan League having been formed, and the time being ripe for the war (it is important to note this point for the sake of our own policy and that of other nations contemplating a war) Bulgaria in particular, and the Balkan States in general, were quite determined that war should be. The Turks at this time, so far as I could gather, were inclined to make reforms and concessions; they had an inclination to ease the pressure on their Christian subjects in the Christian provinces. Perhaps knowing—perhaps not knowing—that they were unready for war themselves, but feeling that the Balkan States were preparing for war, the Turks were undoubtedly willing to make great concessions at this particular time. But I am informed—and I have no reason to disbelieve it—that whatever concessions the Turks might have offered, war would still have taken place. I do not think one need offer any harsh criticism about a nation coming to such a decision as that. If you have made your preparation for war—perhaps a very expensive preparation, perhaps a preparation which has involved very great commitments apart from expense—it is not reasonable to suppose that at the last moment you will consent to stop that war. The line which you may have been prepared to take before you made your preparations you may not be prepared to take after the preparations have been made. And, as the Turks found out afterwards, the terms which were offered to them before the outbreak of the war were not the same terms as would be listened to after that event. We have had, on a greater scale, and in recent times, an instance

of the extreme difficulty, when a nation takes a step in preparation for war, of drawing back, in the case of the Austrian and Russian semi-mobilization which followed the armistice in the Balkans. I went through Austrian territory on the way back, and I made enquiries as to the position; and I was informed on both sides that the Austrian Government had no desire for war, that they were particularly anxious to avoid war, but that they were in the position of almost being forced into war because they had taken the step of mobilizing on the Russian and Servian frontiers. I do not want to stretch this point too far, or to take instances from the Great Powers, but from the point of view of the student of the political side of the war this is important to keep in mind: that when preparations for war have gone to a certain stage, it is not possible for a nation that is threatened with attack to escape attack, to avoid war, by making concessions which were demanded in the first instance. I do not myself think that the Balkan League would have withdrawn from the war supposing the Turks before the outbreak of the war had offered autonomy of the Christian provinces. I was informed in very high quarters, and I believe profoundly, that if the Turks had offered so much at that time, the war would still have taken place.

There is another useful lesson from the political side of this war. At the outset, the Powers, when endeavouring to prevent hostilities, made an announcement that, whatever the result of the war, no territorial benefit would be allowed to any of the participants; that is to say, the Balkan States were informed, on the authority of all Europe, that if they did go to war, and if they won victories, they would be allowed no fruits from those victories. The Balkan States recognized, as I think all sensible people must recognize, that a victorious Army makes its own laws. They treated this *caveat* which was issued by the Powers of Europe as a matter to be politely set aside; and ignored it.

I think political experience shows that if a nation, under any circumstances, wishes its international rights to be respected, it must be ready to fight for them. We have an example from contemporary history in the respective fates of Switzerland and Korea. I believe both nations once stood in very much the same position internationally; that their independence was, in a sense, guaranteed. Korea's independence was guaranteed by both the United States and Great Britain. But we know the independence of Korea has now vanished. Korea could not fight for herself, and nobody was going to fight for a nation which could not fight for herself. The independence of Switzerland is maintained because Switzerland would be a very thorny problem for any Power in search of territory to tackle. In case of an attack on Switzerland, that country would be able to help herself and her friends. On the opposite side of the argument, we see the Balkan League entering upon a desperate war, warned that they would

be allowed no territorial advantage from that war, but engaging upon it because they recognized that a victorious Army makes its own laws.

BULGARIAN PATRIOTISM.

Still keeping to the political side of the war, I was much struck with the wonderful value to the Bulgarian generals of the fact that the whole Bulgarian nation was filled with the martial spirit—was, in a sense, wrapped up in the colours. Every male Bulgarian citizen was trained to the use of arms. Every Bulgarian citizen of fighting age was engaged either at the front, or on the lines of communication. Before the war, every Bulgarian man, being a soldier, was under a soldier's honour; and the preliminaries of the war, the preparations for mobilization in particular, were carried out with a degree of secrecy that, I think, astonished every Court and every Military Department in Europe. The secret was so well kept, that one of the diplomats in Rumania left for a holiday three days before the declaration of war, feeling certain that there was to be no war. Bulgaria is not governed autocratically, but is a very free democracy. It has a newspaper Press that, on ordinary matters, for delightful irresponsibility, might be matched in London. Yet not a single whisper of what the nation was designing and planning leaked abroad. Because the whole nation was a soldier, and the whole nation was under a soldier's honour, absolute secrecy could be kept. No one abroad knew anything, either from the babbling of "Pro-Turks," or from the newspapers, that this great campaign was being designed by Bulgaria. There were no grumblers, no babblers.

BULGARIAN SECRET SERVICE.

The Secret Service of Bulgaria before the war had been excellent. They seemed to know all that was necessary to know about the country in which they were going to fight; and I think this very complete knowledge of theirs was in part responsible for the arrangements which were made between the Balkan Allies for carrying on the war. The Bulgarian people had made up their minds to do the lion's share of the work, and to have the lion's share of the spoils. The Bulgarian people knew quite definitely the state of corruption and rottenness to which the Turkish nation had come. When I reached Sofia, the Bulgarians told me they were going to be in Constantinople three weeks after the declaration of war. That was the view that they took of the possibilities of the campaign. And, when you come to think of it, they kept their programme as far as Chatalja, fairly closely.

It may interest you to know what was the view of the Bulgarians as to the ultimate result of the war, and what they had designed should be the division of spoil after the war. And on this you must know that I make no official statements;

I merely repeat the gossip which I gathered from all classes in Bulgaria, at different times, speaking not only with politicians but with bankers, trading people, and others. They concluded that the Turk was going to be driven out of Europe, at any rate, as far as Constantinople. They considered that Constantinople was too great a prize for the Bulgarian nation, or for the Balkan States, and that Constantinople would be left as an international city, to be governed by a commission of the Great Powers. Bulgaria was, then, to have practically all Turkey-in-Europe—the province of Thrace, and a large part of Macedonia as far as the city of Salonica. Constantinople was to be left, with a small territory, as an international city, and the Bulgarian boundary was to stretch as far as Salonica. Salonica was desired very much by the Bulgarians, and also very much by the Greeks; and the decision in regard to Salonica before the war was that it would be best to make it a free Balkan city, governed by all the Balkan States in common, and a free port for all the Balkan States. Then the frontier of Greece was to extend very much to the north, and Greece was to be allowed all the Aegean Islands. The Servian frontier was to extend to the eastward and the southward, and what is now the autonomous province of Albania (the creation of which has been insisted on by the Powers) was to be divided between Montenegro and Servia. That division, as you will understand, would have left the Bulgarians with the greatest spoil of the war. They would have had entry on to the Sea of Marmora; they would have controlled, perhaps, one side of the Dardanelles; but I believe they thought that the Dardanelles might also be left to a commission of the Powers. It needed great confidence, and exact knowledge as to the position of the Turkish Army to allow plans of that sort to have been not only formed, but to be generally talked about. At the outset of the war the Bulgarian people thought that programme would be carried through; and, personally, I think that if their medical service had not broken down so utterly, they might have got through to Constantinople.

THE CHOLERA.

To emphasize this point I will digress to say that after the battle of Chatalja, on the second night of the battle, Colonel Jostoff came to us and told us we need not get our horses ready for to-morrow, as there would be no more fighting. And he gave as the reason that the cholera—not the real Asiatic cholera, but a kind of choleraic dysentery which had raged in the Turkish Army—had passed into the Bulgarian lines. He said that for every man who was wounded that day, ten had come to the hospital saying "I am ill." The wounded on that day must have been 3,000, and that meant 30,000 cases of sickness, causing a very grave deterioration of the courage of the Bulgarian Army. The soldiers stood wounds with

wonderful patience and virtue, but when smitten with this disease the poor fellows howled out in their agony; and the effect of that on their comrades was terrible. If that cholera had not broken out in the Bulgarian camp, I think it is just possible that the Bulgarian Army would have broken through the lines of Chatalja. They had done a little of the work when the battle ceased, and it was possible they would have completed the work, as they had done almost as great things before. And if the Bulgarian medical service had been as good as other branches of their service, I do not think that cholera would have broken out in their lines. In that one respect the Bulgarian Army was not prepared; it was the one thing in which they had not been trained; it was the department in which the war broke down in the final outcome. Their successful invasion of Turkey broke down owing practically to the entire absence of ordinary sanitary precautions.

BULGARIAN STRATEGY.

That brings me to a slight discussion of the Bulgarian strategy. Candidly, I cannot agree entirely with some of the views which, to me, seem to have been inspired not by a study of the Bulgarian strategy, but by admiration of the wonderful heroism and courage of the soldiers. I cannot agree with some of the exaggerated views on the genius of the Bulgarian strategy in this war. At its outset it was exceedingly good; the reconnaissance phase of the campaign was carried through perfectly in that the soldier was assisted by the perfect discipline of the nation, which allowed a cheerful obedience to the most exacting demands, and absolute secrecy. But it seemed to me that at the stage when the battle of Lule Burgas had been fought and won, there was a very serious mistake—I am not speaking now in the light of the ultimate result, for I expressed this view to Mr. Prior, of the *London Times*, in voyaging with him from Mustapha Pacha to Sofia one day long before—there was a very serious mistake in the policy of “masking” Adrianople. And I have reasons for thinking that that was not the original plan of the soldiers; it was not the original Bulgarian strategy. That strategy was, in the first instance, to deceive the Turks as to where the blow was to come from. And in that they succeeded admirably. No one knew where the main attack on the frontier would be made. It was made unexpectedly at Kirk Kilisse, when all expectation was that it would be through Mustapha Pacha and towards Adrianople. But after that period of secrecy, when the main attack developed, and the Turks knew where the Bulgarian forces were, it seemed to me it was a great mistake for the Bulgarian Army to push on as they did, leaving Adrianople in their rear. It was not merely that Adrianople was a fortress, but it was a fortress which straddled their one line of communication. The railway from Sofia to Constantinople passed through Adrianople. Short of that

railway, there was no other rail road, and there was no other carriage road, one might say, for the Turk did not build roads. Once you were across the Turkish frontier you met with tracks, not roads. The effect of leaving Adrianople in the hands of the enemy was that supplies for the Army in the field coming from Bulgaria could travel by one of two routes. They could come through Yamboli to Kirk Kilisse, or they could come through Novi Zagora to Mustapha Pacha by railway, and then to Kirk Kilisse around Adrianople. From Kirk Kilisse to the rail-head at Seleniki, close to Chatalja, they could come not by railway, but by a tramway, a very limited railway. If Adrianople had fallen, the railway would have been open. The Bulgarian railway services had, I think, something over 100 powerful locomotives at the outset of the war, and whilst it was a single line in places, it was an effective line right down to as near Constantinople as they could get. But, Adrianople being in the hands of the enemy, supplies coming from Yamboli had to travel to Kirk Kilisse by track, mostly by bullock wagon, and that journey took five, six, or seven days. The British Army Medical Detachment, travelling over that road, took six days. If one took the other road you got to Mustapha Pacha comfortably by railway. And then it was necessary to use bullock or horse transport from Mustapha Pacha to Kirk Kilisse. That journey I took twice; once with an ox wagon, and afterwards with a set of fast horses, and the least period for that journey was five days. Now you had got your supplies to Kirk Kilisse. From Kirk Kilisse there was a line of light railway joining the main line. But on that line the Bulgarians had only six engines, and, I think, 32 carriages; so that, for practical purposes, the railway was of very little use indeed past Mustapha Pacha. Whilst Adrianople was in the hands of the enemy, the Bulgarians had practically no line of communication. My reason for believing that it was not the original plan of the generals to leave Adrianople "masked" is, that in the first instance I have a very high opinion of the generals, and I do not think they could have designed that; but I think rather it was forced upon them by the politicians saying, "We must hurry through, we must attempt something, no matter how desperate it is, something decisive." But, apart from the high opinion I have of the Bulgarian generals, the fact remains that after Adrianople had been attacked in a very half-hearted way, and after the main Bulgarian Army had pushed on to the lines of Chatalja, the Bulgarians called in the aid of a Servian division to help them against Adrianople. I am sure they would not have done that if it had not been their wish to subdue Adrianople, because, before the outbreak of the war, there was a Treaty with Bulgaria and Servia with regard to the partition of territory afterwards. Now, I should imagine, knowing the various States as I do, that the Servian Government, before giving that help, probably insisted upon some variation of this particular bargain; that is to say, the Bulgarians had to pay for the help of the Servians,

because it was something beyond what the Servians had engaged to do. The position of the Bulgarian Army on the lines of Chatalja, with Adrianople in the hands of the enemy, was this: that it took practically their whole transport facilities to keep the Army supplied with food, and there was no possibility of keeping the Army properly supplied with ammunition. So if the Bulgarian generals had really designed to carry the lines of Chatalja without first attacking Adrianople, they miscalculated seriously. But I do not think they did; I think it was a plan forced upon them by political authority, feeling that the war must be pushed to a conclusion somehow. Why the Bulgarians did not take Adrianople quickly in the first place is, I think, to be explained simply by the fact that they could not. But if their train of sappers had been of the same kind of stuff as their field artillery, they could have taken Adrianople in the first week of the war. Remember, Adrianople was not a Port Arthur. I have not seen Port Arthur, but I take it that it was wonderfully strongly fortified. I do not think Adrianople comes within the same category. I have seen it only from the outside; but the forts cover a very wide area, and I imagine they could have been subdued in detail, from what I could see of them.¹

The Bulgarians had no effective siege train. A Press photographer at Mustapha Pacha was very much annoyed because photographs he had taken of guns passing through the town were not allowed to be sent through to his paper. He sent a humorous message to his editor, that he could not send photographs of guns, "it being a military secret that the Bulgarians had any guns." But the reason the Bulgarians did not want photographs taken was that these guns were practically useless for the purpose for which they were intended.

THE BULGARIAN INFANTRY.

The main excellence of the Bulgarian Army was its infantry, which was very steady under punishment, admirably disciplined, perfect in courage, and which had, I think, that supreme merit in infantry, that it always wanted to get to work with the bayonet. The Bulgarian soldiers had a joke among themselves. The order for "Bayonets forward!" was, as near as I could get it, "*Napret nanochi.*" Arguing by similarity of sound, the Bulgarian soldier affected to believe it meant

¹ Kirk Kilisse was represented as a wonderful fortress, but when "the fortifications" were carried by the Bulgarians, it was found that the place was not a fortress at all. It was a town situated in a position of great natural strength, with two brick erections which might be called forts, which had guns in them, but did not protect the town, and which would not keep a force at bay for half an hour. Since speaking, I have seen from the reports of those who entered Adrianople that my judgment as to the value of its fortifications was sound.

" Spit five men on your bayonet." It was the common camp saying that it was the duty of the infantryman to impale five Turks on his bayonet, to show that he had conducted himself well. The Bulgarian infantrymen had devised a little "jim" in regard to bayonet work, which I had not heard of being used in war before. When they were in the trenches, and the order was expected to fix bayonets, they had a habit of fixing them, or rather pretending to, with a tremendous rattle, on which signal the Turks would often leave their trenches and run, expecting the bayonet charge; but the Bulgarians still stuck to their trenches, and got in another volley.

ARTILLERY.

The artillery work of the Bulgarians was very good indeed; they had an excellent field piece, practically the same field piece as the French Army. Their work was excellent with regard to aim and with regard to the bursting of shrapnel. The work was good in regard to firing from concealed positions. But I never saw enterprising work on their part; I never saw them go into the open, except during a brief time at Chatalja. They seemed to dig themselves in behind the crest of a hill, where they could fire, unobserved by the enemy. The Turks had very little idea of firing from concealed positions. The battle of Lule Burgas I did not see, but I am informed that the Bulgarian artillery did excellent and very enterprising work there in pursuing the enemy.

THE CONDUCT OF THE TROOPS.

Now, with regard to the conduct of the troops. Much has been said about outrages in this war. I believe that in Macedonia, where irregular troops were at work, outrages were frequent on both sides; but in my observation, following the main Army, and being with the main Army some of the time, I can say there was a singular lack of any excess. The war, as I saw it, was carried out by the Bulgarians under the most humane possible conditions. At Chundra Bridge I was walking across country, and I had separated myself from my cart. I arrived at the bridge at eight o'clock at night, and found a vedette on guard. They took me for a Turk. I had on English civilian green puttees, and green was the colour of the Turks. It was a cold night, and I wished to take refuge at the camp fire, waiting for my cart to come. Though they thought I was a Turk, they allowed me to stay at their camp fire for two hours. Then an officer who could speak French appeared, and I was safe; but they attempted in no way to molest me during those two hours. They made signs as of cutting throats, and so on, but they were doing it humorously, and they showed no intention to cut mine. Yet I was there irregularly, and I could not explain to them how I came to be there.

Another incident at Arjenli, a little village where the ammunition train was before the Battle of Chatalja. There was a little party of seven: three officers, three non-commissioned officers, and myself. We had a little room in a Turkish house. After supper we were talking about the battle which was expected on the next day. At ten o'clock that night a shot was heard in the village. A junior officer went out to inquire, and after a time a Turkish prisoner was brought in. He had tried to rush past a sentry. Remember, it was the ammunition park, and a battle was expected on the morrow. The sentry had fired at him, but had not hurt him. He then grappled with him, and brought him in as a prisoner. I expected to see him shot out of hand. But they decided to court-martial him, and, being a stranger, I was invited to act as friend of the prisoner. The proceedings, which were in Turkish, were translated to me by the veterinary officer into French. The Turk's story was clear. He was a civilian, aged 40; he had lived in the village, and when the Turkish Army evacuated the district he stayed there. That night he had gone out to a well for some purpose, and, on coming back, was challenged by the sentry. He lost his head, and tried to rush the sentry. It was evidently a true story, and he was allowed to go. I think that showed there was no cruelty, and no lack of nerve or of steady courage in the main body of the Bulgarian Army. I do not think any body of officers could have acted better than they did under those circumstances. On the road from Silviri to Chatalja I recollect another incident. Four soldiers had got separated from their regiment, and were obviously starving, and seeing I was eating, they begged bread of me. I gave them what bread I had and some biscuits, and two of them brought out their poor purses and produced coppers with which to pay me for it. These were peasant soldiers of the Bulgarian Army.

But to conclude with regard to strategy and tactics, for I am afraid I have digressed. The infantry was a most admirable arm. It was too eager. Sometimes it suffered severely because it would not wait for artillery preparation, but wanted to get in with the bayonet charge before the order was given. On account of the officers being picked off, officers going into battle did not have a distinguishing uniform; they were dressed as their men were. There was a shortage of officers because of the way the regiments had been filled up for the war. The officers kept in positions in rear of the men. So far as I can gather, when the charge came, the officers still kept back. The kit of the Bulgarian infantry weighed 60-lbs., and they marched wonderfully well with it. The infantryman carried a spade, food, water, and ammunition for two days' action. He did not waste his ammunition. The trenches which had been occupied by the Bulgarians contrasted with those occupied by the Turks, and in that you could see the difference between a disciplined Army and a rabble. I do not want to be offensive to the Turk,

but the Army he put in the field was mostly a rabble. In the Turkish trenches one saw quantities of ammunition which had not been fired off. But that was very rare in the Bulgarian trenches; the cases seen there were empty. In one trench I saw at least 1,500 rounds of rifle ammunition, unexploded, left by the Turkish soldiers.

COMMISSARIAT, SUPPLY AND TRANSPORT.

The extraordinary simplicity of the commissariat helped the Bulgarian generals a great deal. The men had bread and cheese, sometimes even bread alone; and that was accounted a satisfactory ration. When meat and other things could be obtained, they were obtained; but there were long periods when the Bulgarian soldier had nothing but bread and water. The water, unfortunately, he took wherever he could get it, by the side of the route at any stream he could find. There was no attempt to ensure a pure water supply for the Army. I do not think that, without that simplicity of commissariat, it would have been possible for the Bulgarian forces to have got as far as they did. There was an entire absence of tinned foods. If you travelled in the trail of the Bulgarian Army, you found it impossible to imagine that an Army had passed that way; because there was none of the litter which is usually left by an Army. It was not that they cleared away their rubbish with them; it simply did not exist. Their bread and cheese seemed to be a good fighting diet.

The transport was, naturally, the great problem which faced the generals. I have already said something about the extreme difficulty of that transport. I have seen at Seleniki, which is the point at which the rail-head is, within 30 miles of Constantinople as the crow flies, ox wagons, which have come from the Shipka Pass, in the north of Bulgaria. I asked one driver how long it had been on the road; he told me three weeks. He was carrying food down to the front. The way the ox wagons were used for transport was a marvel of organization to me. The transport officer at Mustapha Pacha, with whom I became very friendly, was lyrical in his praise of the ox wagon. It was, he said, the only thing that stuck to him during the war. The railway got choked, and even the horse failed, but the ox never failed. There were thousands of ox wagons crawling across the country. They do not walk, they crawl, like an insect, with an irresistible crawl. It reminds you of those armies of soldier ants which move across Africa, eating everything which they come across, and stopping at nothing. I had an ox wagon coming from Mustapha Pacha to Kirk Kilisse, and we went over the hills and down through the valleys, and stopped for nothing—we never had to unload once. And one could sleep in those ox wagons. There is no jumping and pulling at the traces, such

as you get with a harnessed horse. The ox wagon moved slowly; but it always moved. If the ox transport had not been as perfectly organized, and if the oxen had not been as patiently enduring as they proved to be, the Bulgarian Army must have perished by starvation. And yet, at Mustapha Pacha, a censor would not allow us to send anything about the ox wagons. That officer thought the ox cart was derogatory to the dignity of the Army. If we had been able to say that they had such things as motor transport, or steam wagons, he would have cheerfully allowed us to send it. But after Lule Burgas, the ox transport had to do the impossible. It was impossible for it to maintain the food and the ammunition supply of the Army at the front, which I suppose must have numbered 250,000 to 300,000 men. That Army had got right away from its base, with the one line of railway straddled by the enemy, and with the ox as practically the chief means of transport.

At that battle of Chatalja, which opened on Sunday, November 17th, the first phase was an artillery reconnaissance. There has been an objection made from the Turkish side to that statement, and it has been represented as a general engagement. But I was with the staff of General Demetrieff at the battle, and, from the moment of the battle opening until night-fall, I should say it was nothing but an artillery reconnaissance. Whatever information the artillery obtained was gained with a very small expenditure of ammunition. The ammunition fired from the Bulgarian lines on Sunday would not equal, I am certain, a thousand rounds. It may not have been more than 500 rounds. On the Monday, it was decided that the Turkish position was to be attacked. There was practically no artillery work at all then. The day certainly was not very favourable to artillery; it was misty, with occasional lapses into sunshine, like an English summer. But the artillery, on that day, was practically not used at all. The infantry was rushed up against the Turkish entrenchments practically without artillery preparation. Against three minor positions, the infantry got through. In another one, having got through, they had to retire because they could not hold the hill, which was swept by an enfilading fire from the Turkish positions. The infantry could not carry the whole position without far more artillery preparation than had been given, and I am confident, from the observations I made, that the chief reason the artillery preparation was not given was, that the Bulgarians had not the ammunition, and that their transport service was insufficient to get them the ammunition.

THE BULGARIAN REQUISITIONING LAW.

The position of the Bulgarian nation towards its Government, on the outbreak of the war, is, I think, extremely interesting as a lesson in patriotism. Every man fought who could fight. But, further, every family put its surplus of goods

into the war-chest. The men marched away to the front; and the women of the house loaded up the surplus goods which they had in the house, and brought them for the use of the military authorities on the ox wagons, which also went to the military authorities to be used on requisition. A Bulgarian law, not one which was passed on the outbreak of the war—they were far too clever for that—but a law which was part of the organic law of the country, allowed the military authorities to requisition all surplus food and all surplus goods which could be of value to the Army on the outbreak of hostilities. The whole machinery for that had been provided beforehand. But so great was the voluntary patriotism of the people, that this machinery practically had not to be used in any compulsory form. Goods were brought in voluntarily, wagons, cart-horses and oxen, and all the surplus flour and wheat, and—I have the official figures from the Bulgarian Treasurer—those goods which were obtained in this way totalled in value some six million pounds. That represented the surplus goods, beyond those necessary for consumption by the Bulgarian people, at the outset of the war. The Bulgarian people represent half the population of London. The peasant population is very poor. Their national existence dates back only half a century. But they are very frugal and saving; that six millions which the Government signed for represented practically all the savings which the Bulgarian people had at the outbreak of the war. I am told that the gold supply in the Bulgarian Treasury at the time was only three million pounds. So that there was an army of 350,000 men put into the field, and only three million pounds as the gold supply.

THE MEDICAL SERVICE.

Now about the Bulgarian medical service. I think that is a point of interest to the British Army, because, since the Japanese war, there has been much thought given to the perfection of the sanitary and medical services. If you want me to tell you what I consider are the lessons of the Bulgarian medical and sanitary services, I must say frankly, that those services did not exist. But we can learn the lessons of the shocking consequences of neglecting that part of the organization. There was not, at any stage of the campaign up to the battle of Chatalja—that is, until after the outbreak of cholera—any precaution, to my knowledge, taken to secure a clean water supply, or clean camping grounds, or to take the most elementary precautions against the outbreak of disease in the Army. The medical service was almost as bad. I saw much of the hospital work at Kirk Kilisse after the armistice; and it was deplorable to see the fine fellows whose lives were sacrificed, or whose limbs were sacrificed through neglect of medical knowledge. I am sure the Bulgarians would have saved many hundreds of lives, if there had been anything like a proper medical service at the front.

After Chatalja a very great movement for reform was instituted, and I think the medical condition of the Bulgarian Army now is a great deal better than it was at the outbreak of the war; and it will probably be very much better in the next war, in regard to the precautions against disease. But the Bulgarian campaign undoubtedly broke down partly because of the bad medical service, and of the complete absence of sanitary precautions. The natural health of the troops was excellent. The Bulgarian peasant, with his simple diet and completely virtuous life, was a good subject. In the hospitals I saw no cases of illness arising from vice. The Bulgarian lives a very simple life, on a very simple diet; and so he was naturally an extraordinarily healthy man. The way in which wounds healed if they had anything like a chance, was wonderful; but, as I have said, the mortality from wounds was much greater than it should have been.

In conclusion, I should like to say a little about a matter which, perhaps, affected me personally more than anything, and that is, the position of war correspondents, and the position of military attachés, in this campaign. The war correspondents were subject, at the outset, to a very severe censorship. The Censor's Department of the Bulgarian Army was complete and thorough. With every Army there was a staff of censors, who were severe to different degrees, but all were firm to allow nothing to go through which could possibly help the enemy, or which could help a possible enemy in the future. And it is on that point I would make one or two observations. When the army of Press correspondents were gathered, it was seen that there were several Austrians and Rumanians, and these countries were, at the time, threatening mobilization against the Balkan States. It was impossible to expect that the Bulgarian forces should allow Rumanian journalists and Austrian journalists to see anything of their operations which might be useful to Austria or Rumania in a future campaign against Bulgaria. Yet it would not have been proper to have allowed correspondents other than the Austrians and Rumanians to go to the front, because that would perhaps have created a diplomatic question, which would have increased the tension. It certainly would have given offence to Austria and to Rumania. It would have been said that there was an idea that war was intended against those nations; and diplomacy was anxious to avoid giving expression to any such idea. The military attachés were in exactly the same position. There were the Austrian attaché and the Rumanian attaché, and their duty was to report to their Governments what they could find out that would be to the advantage of the military forces of their Governments. The Bulgarians naturally would not allow the Rumanian or the Austrian attaché to see anything of what went on. I think the attachés were even worse treated than the correspondents, because, as the campaign developed, the Bulgarians got to understand that some of us were trustworthy.

A few Russian, French, and three English journalists were accounted trustworthy, and we were given certain facilities for seeing. But we were still without facilities for the despatch of what we had seen. But the military attachés were kept right in the rear all the time. They were taken over the battle fields after the battles had been fought, so that they might see what wonderful victories had been gained by the Bulgarians.

I think the Bulgarians were much strengthened in their attitude towards the war correspondents, by the fact that they admitted receiving much help in their operations from the news published in London and in French newspapers from the Turkish side. The Turkish Army, when the period of rout began, was in the position that it was able to exercise little check on its war correspondents; and the Bulgarians had had everything which was recorded as being done in the Turkish Army sent on to them. They admitted it was a great help to them.

I think the outlook for war correspondents in the future is a very gloomy one, and that the outlook for the military attaché is also gloomy. I think, in the future, no Army carrying on anything except minor operations with savage nations, no Army whose interests might be vitally affected by information leaking out, will allow military attachés or war correspondents to see anything at all. I admit to having some grievance against the Bulgarian censorship myself, because of little ways which I thought were unnecessarily deceitful. One correspondent seems to have been used by the Bulgarian generals to communicate to the European Press not actual facts about the campaign, but what the Bulgarians wanted Europe to believe were the facts about the campaign. It is a point which I wish to raise, whether it is a justifiable method in warfare, that an Army, in addition to keeping its secrets, which it has a perfect right to do, should, when it finds it useful, circulate false reports. Undoubtedly, an Army in the field, if it can send out spies with false reports, with the idea that those spies and those false reports may be taken by the enemy, is justified in doing so; and if an officer can legitimately be used in this way it raises the question whether a journalist can be. Journalists would say "no." But, in spite of any grievances which we had against the Bulgarians, the high military virtue of the people, the wonderful courage, the resolution, and the patriotism, left me, personally, with the greatest admiration of them as a nation; and it strengthened me in the opinion I had previously held, but which now is supported by more intimate knowledge, that in the ultimate result, the fate of a nation is determined by its military virtues.

NAVAL NOTES.

BRITISH EMPIRE.

The following are the principal promotions and retirements for May :-

PROMOTIONS.—Vice-Admiral C. H. Adair to Admiral, May 10; Vice-Admiral Sir F. W. Fisher, K.C.V.O., to Admiral, May 15; Vice-Admiral C. H. Cross to Admiral, May 16; Vice-Admiral Sir G. A. Callaghan, G.C.V.O., K.C.B., to Admiral, May 17; Vice-Admiral (retired) A. W. Chisholm-Batten, M.V.O., to Admiral on the retired list, May 15; Rear-Admiral the Hon. Sir A. E. Bethell, K.C.M.G., to Vice-Admiral, May 10; Rear-Admiral F. E. E. Brock, C.B., to Vice-Admiral, May 15; Rear-Admiral H. P. Williams to Vice-Admiral, May 16; Rear-Admiral Sir C. H. Coke, K.C.V.O., to Vice-Admiral, May 17; Rear-Admiral (retired) T. P. Walker to Vice-Admiral on the retired list, May 15; Rear-Admiral (retired) C. E. Kingsmill to Vice-Admiral on the retired list, May 17; Rear-Admiral (retired) C. J. Baker to Vice-Admiral on the retired list, May 17; Captain J. de M. Hutchison, C.V.O., C.M.G., A.d.C., Commodore 2nd class, to Rear-Admiral, May 10; Captain E. F. B. Charlton, A.d.C., to Rear-Admiral, May 10; Captain R. S. P. Hornby, C.M.G., to Rear-Admiral, May 15; Captain M. E. F. Kerr, M.V.O., A.d.C., to Rear-Admiral, May 16; Captain the Hon. H. L. H. Hood, C.B., C.V.O., D.S.O., A.d.C., to Rear-Admiral, May 17.

RETIREMENTS.—Admiral Sir J. Durnford, K.C.B., D.S.O., May 10; Admiral C. H. Adair, May 15; Admiral G. A. Giffard, C.M.G., May 16; Admiral C. H. Cross, May 17; Rear-Admiral C. H. H. Moore, May 10; Surgeon-General Sir J. Porter, K.C.B., Director-General of the Medical Department of the Navy, May 11.

FRANCE.

APPOINTMENTS, ETC.—The following are the principal appointments which have been made :-

Vice-Admiral P. A. Le Bris to be a member of the Consultative Committee on the Defence of the Colonies. Rear-Admiral J. A. Habert to be Naval Commandant in Algeria. Capitaine de vaisseau F. A. Raffier-Dufour to "Charlemagne."

NEW CADRE REGULATIONS.—M. Pierre Baudin, the Minister of Marine, is submitting the following proposals for the consideration of the Chamber :

Retirement of Officers.—Vice-Admirals, at the age of 65; Rear-Admirals, 60; Captains, 55; Frigate-Captains, 50; Corvette-Captains, 45; Lieutenant-Commanders (Lieutenants de vaisseau), 45. With a view of providing further employment for officers, who would otherwise go on the retired list, the Minister of Marine has created a Coast Defence Cadre, which will consist of the following officers :—One Rear-Admiral, five Captains, 24 Frigate-Captains, 38 Corvette-Captains.

In addition, the Corps of Hydrographical Engineers will consist of :—One Rear-Admiral, seven Captains, eight Frigate-Captains, nine Corvette-Captains, 20 Lieutenants. Further, the new Cadres of the Executive Corps

will comprise:—16 Vice-Admirals, 30 Rear-Admirals, 115 Captains, 210 Frigate-Captains, 325 Corvette-Captains, 830 Lieutenants, and 700 (about) Midshipmen of the 1st and 2nd classes, as the needs of the service require.

The mean annual number of admissions to the Naval School will be 110.

The Cadre of the Officers of the Crews of the Fleet (*Officiers des équipages de la flotte*) will be 250. In principle, these officers will only be employed on shore and in the schools; they will also constitute, with the officers of the reserve, the Cadre of Subaltern Officers of the Coast Defence Corps.

On board, the *Maitres Principaux*, a new rank corresponding to that of *Adjudant-Chef* (a grade between warrant and commissioned officers) will do duty as officers and assist the heads of their departments.

The above are the lines of the new regulations which are intended to replace those of June 10, 1896; but in many respects they can only be considered as provisional.

DIVISIONAL ORGANIZATION FOR THE MANCEUVRES.—Vice-Admiral Boué de Lapeyrère has issued the following list of the ships to take part in the forthcoming manoeuvres:

1. *Group A.*—1st SQUADRON: five battleships: "Vergniaud," "Danton," "Diderot," "Mirabeau," "Condorcet"; 2nd Squadron: five battleships: "Patrie," "Vérité," "Démocratie," "Justice," "République."
- 2ND DESTROYER FLOTILLA: five destroyers: "Carabinier," "Lansquenet," "Spahi," "Enseigne-Henry," "Aspirant-Herber."
- 4TH FLOTILLA: five destroyers: "Arbalète," "Pierrier," "Mortier," "Dard," "Mousqueton"; Mine Layers: "Cassini," "Massue," "Hache."
2. *Group B.*—3rd Squadron: five battleships: "Suffren," "Saint-Louis," "Gaulois," "Jauréguiberry," "Charlemagne"; Cruiser Squadron: Armoured Cruisers: "Waldeck-Rousseau," "Ernest-Renan," "Edgar-Quinet," "Victor-Hugo."
- 1ST DESTROYER FLOTILLA: five destroyers: "Casque," "Dague," "Faulx," "Boutefeu," "Cimenterre."
- 3RD DESTROYER FLOTILLA: six destroyers: "Fantassin," "Tirailleur," "Voltigeur," "Chasseur," "Janissaire," "Cavalier."
- 1ST SUBMARINE FLOTILLA: Destroyers: "Epée," "Hallebarde"; Submarines: "Monge," "Ampère," "Guy Lussac," "Papin," "Cugnot," "Messidor," "Fresnel."
- 2ND SUBMARINE FLOTILLA: Destroyers: "Pique," "Carabine"; Submarines: "Circé," "Calypso," "Faraday," "Joule," "Berenouilli."

Independent Group: Battleship: "Voltaire" (flagship of Vice-Admiral Boué de Lapeyrère, Chief Umpire); "Bouclier" and "Fourche" for despatch duties.

In all, 16 battleships, four armoured cruisers, three mine-layers, 27 destroyers and 12 submarines.

The 5th Destroyer Flotilla will remain at Tunis during the first week and will then join the fleet.

Moniteur de la Flotte.

GERMANY.

The following are the principal promotions and appointments :—

Vice-Admirals : Pohl, and von Heeringen, to be Admirals. Rear Admirals : Schaumann to be second-in-command of 1st Squadron; Mischke to be Inspector of First Marine Inspectorate. Kapitäns zur See : Josephi, Schrader (Friedrich), Warmbach to be Rear-Admirals; von Natzmer to be "König Wilhelm" and command of Boys' Division; Trendtel to be Inspector of the 5th Coast District; Jasper (Gisbert) to be President of the Commission for Ships' Trials; Schröder (Hermann) to be Assistant-Director of Kiel Dockyard; von Egidy (Moritz) to "Seydlitz"; Behncke (Friedrich) to be Director of Fitting-out Department, Kiel Dockyard; Back, to command of 1st Seamen's Division and to be Inspector of Second Marine Inspectorate.

LOSS OF TORPEDO-BOAT "S178."—An unfortunate mishap resulting in the loss of torpedo-boat "S178" with 69 men, occurred at the conclusion of some practice manoeuvres which had been carried out by the High Sea Fleet and No. 11 Torpedo Half Flotilla off Helgoland on the evening of March 4 last.

The boat belonged to the Reserve Flotilla, and had been mobilized, being manned with a crew of men who were in their third year of service. The exercises, which had consisted of night attacks on the ships of the fleet, had concluded, and all the vessels were steaming for the anchorage to the East of the Banks with their lights burning. The boats were in line ahead and on account of the weather were going at reduced speed, but "S177" and "S178" had dropped astern, and, in trying to regain their station, crossed the bows of the armoured cruiser "Yorck"; this "S177" did safely, but "S178" was struck on the starboard side immediately before the after conning tower, although every step was taken on board the cruiser to avert the collision, when the danger was seen. The boat filled and sank almost immediately, so that nearly all the men below went down with her, her commander and the officer of the watch, who were both on the bridge, being also among those drowned, giving their orders calmly to the last. Owing to the state of the weather and the darkness, in spite of all the efforts to save life made by the "Oldenburg" and No. 177, only 15 men, among whom was the engineer in charge, were saved.

LAUNCH OF THE FIRST-CLASS BATTLESHIP "KÖNIG."—On March 1, the new battleship "König" (Ersatz "S") was launched from the Imperial dockyard, Wilhelmshaven, in the presence of the Kaiser, who, previous to the ceremony, had witnessed the swearing in of 2,200 naval recruits for the fleet. Full details as to the dimensions of the "König" and her three sisters are not available, but it is believed that their displacement will be about 27,000 tons, with engines indicating some 30,000 h.p., giving a speed of 21 knots, the turbines being of the Parsons type, and steam being generated by Schultz boilers. The armament will, it is reported, consist of ten 14-inch guns.

Marine Rundschau.

The Estimates for 1913.

The Ordinary Estimates for 1913 amount to £10,961,998, as against £9,923,295, the amount voted by the Reichstag for last year, being an increase of £1,038,703. The following are the principal items :—

ORDINARY PERMANENT ESTIMATES.

	<i>Proposed for 1913.</i>	<i>Voted, 1912.</i>
Imperial Ministry of Marine and Naval Cabinet	£ 122,906	£ 118,453
Naval General Staff	18,174	17,897
Naval Observatories	22,940	21,696
Station Accounts Departments	46,726	44,784
Legal Department	11,625	10,957
Naval Chaplains and Garrison Schools	11,118	10,506
Pay of Officers and Men	2,383,377	2,081,203
Maintenance of Fleet in Commission	2,852,600	2,525,550
Victualling	180,337	160,541
Clothing	29,771	29,116
Garrison Administration	74,138	71,585
Works Department	50,619	47,735
Lodging Allowance	224,233	212,175
Medical Department	185,428	167,567
Travelling Expenses, Freight Charges, etc.	215,150	212,335
Training Establishments	36,729	31,295
Maintenance of Fleet and Dockyards	1,912,719	1,849,233
Ordnance and Fortification	1,221,778	1,060,879
Accountant Department	69,079	62,306
Pilotage, Coastguard and Surveying	49,979	45,642
Miscellaneous Expenses	133,164	106,636
Administration of Kiau-Chau Protectorate	7,863	7,782

SPECIAL ORDINARY ESTIMATES.

Building Programme for 1913.—For the construction and completion of the following ships:—

	£
Battleship "Kaiserin" (Ersatz "Hagen"), 4th and final Vote	250,000
Battleship "König Albert" (Ersatz "Ægir"), 4th and final Vote	250,000
Battleship "Prinz Regent Luitpold" (Ersatz "Odin"), 4th and final Vote	250,000
Armoured Cruiser "Seydlitz" (J), 4th and final Vote	257,500
Battleship Ersatz "Kurfürst Friedrich Wilhelm" 3rd Vote	450,000
Battleship Ersatz "Weissenburg," 3rd Vote	450,000
Battleship "S," 3rd Vote	450,000
Armoured Cruiser "K," 3rd Vote	425,000
Small Cruiser "Karlsruhe" (Ersatz "Seeadler"), final Vote	75,000
Small Cruiser "Rostock" (Ersatz "Geier"), final Vote	75,000
Battleship Ersatz "Brandenburg," 2nd Vote	525,000
Armoured Cruiser "Kaiserin Augusta," 2nd Vote	550,000
Small Cruiser Ersatz "Irene," 2nd Vote	125,000
Small Cruiser Ersatz "Prinzess Wilhelm," 2nd Vote	125,000
Battleship Ersatz "Wörth," 1st Vote	350,000
Battleship "T," 1st Vote	350,000

SPECIAL ORDINARY ESTIMATES.—Continued.

	£
Armoured Cruiser Ersatz "Hertha," 1st Vote	250,000
Small Cruiser Ersatz "Gefion," 1st Vote	125,000
Small Cruiser Ersatz "Hela," 1st Vote	125,000
Gunboat "C," 1st Vote	45,000
Imperial Yacht Ersatz "Hohenzollern," 1st Vote	250,000
Steamer for general use	30,000
Torpedo-boat Division, final Vote	400,000
Torpedo-boat Division, 1st Vote	500,000
Submarines, Construction and Experiments	1,000,000
Alteration and Improvements of Armoured Cruisers	40,000
Alteration and Improvements of Small Cruisers	35,000
 Total	 £7,857,500

Etat für die Verwaltung der Kaiserlichen Marine auf das Rechnungsjahr, 1913.

THE "KARLSRUHE" CLASS.—Some scant particulars of the new cruisers "Karlsruhe" and "Rostock" are given in the *Marine Rundschau* for December, 1912. The displacement of this class is 4,900 tons, or 200 tons more than the "Breslau." The armament, however, remains the same, and consists of twelve 4.1-inch quick-firers and two submerged torpedo-tubes. The complement of each vessel is 370. Although the number and calibre of the guns remain the same as those of the "Breslau," the "Rostock's" and "Karlsruhe's" 4.1-inch quick-firers are of a much improved type. They are 50-calibre weapons of a new and greatly improved model, firing a 39.6 pound shell with an initial velocity of 3,275 foot-seconds. This is Krupp's latest contribution to the list of medium-calibre quick-firers, and is held by those who have inspected it to be the finest gun of its size ever turned out. They have entirely new mountings, which enable the guns to be worked by a reduced crew with the minimum of fatigue, this result being attained by the extensive use of anti-friction bearings. Each gun is provided with two seats for the gunlayers, one on each side, and the telescopic sights are adjusted in a manner which makes it possible for the pointer to keep the sights steadily on the target without reference to the movements of the ship, even when it is rolling or pitching heavily. It is possible, furthermore, to train and elevate from either side of the gun. The firing trigger is attached to the hand-wheel training gear, a most advantageous innovation. The speed of the training and elevating gear can be regulated by special mechanism, and this, it is claimed, is a superior substitute for the shoulder pad, which has ceased to figure in the latest Krupp quick-firers. From all accounts the new gun in question has passed through very severe trials with complete success, the provision of a seat for the gunlayer and the new sights conduced to accuracy in a remarkable degree during long-sustained firing.

This class as well as the "Breslau" has an armoured belt four inches thick amidships tapering to two inches at the ends. They also have a protective deck.

Their speed will be only 25 knots, and it is intended that two petrol motors, two stage, six cylinders each, giving a total horse-power of 25,000, will be the motive power.

United States Naval Institute Proceedings.

RUSSIA.

PROPOSED SUBMARINE CRUISER.—The *Scientific American* publishes an illustration of a submarine cruiser more than six times the tonnage of the next largest submersible. It is thus described:—This Russian submarine cruiser is to be virtually an underwater torpedo "Dreadnought," and she is also to be capable of planting mines while operating submerged. The torpedo equipment will consist of 36 launching tubes with a supply of 60 long 18-inch Whitehead torpedoes. There will be 16 tubes on each broadside, with two bow and two stern launching apparatus. The mine-planting equipment will provide for the carriage of 120 naval defence mines. The vessel will have a battery of five 4.7-inch rapid-fire guns for the purpose of resisting the attack of surface torpedo vessels. These guns will probably prove useful in defending the submarine cruiser during the interval when she is passing from surface trim to a condition of readiness for submerged operations. As a further protection during this period the inclined and flat portions of the superstructure, together with the revolving turret forward, will be sheltered by armour varying from two to three inches thick. In the light surface condition, the cruiser will have a displacement of 4,500 tons. This means that about 1,000 tons of water ballast must be handled and taken into the boat in order to get her ready for under-water work. The designer estimates that the vessel can perform this operation in three minutes, but this sounds too optimistic in the light of experience with submarines of one-tenth the displacement; it will probably take much longer, and the armour and the rapid-fire guns will be very helpful while passing from the surface to the under-water condition.

We can get a better idea of the general character of this Russian craft from the following schedule of her principal dimensions:—

Length between perpendiculars, 400 feet; beam, maximum, 34 feet; draught, surface trim, 21.5 feet; draught, maximum submerged, to top of turret, 29.5 feet; engines, explosive, for surface, 18,000 I.H.P.; electric motors, submerged propulsion, 4,400 I.H.P.; speed, maximum, surface, 26 knots; speed, maximum, submerged, 14 knots; radius of action, surface, at 11 knots, 18,500 miles; at 21 knots, 1,250 miles; at 25 knots, 730 miles; radius of action submerged, at six knots, 275 miles; at eight knots, 154 miles; at ten knots, 80 miles; at 12 knots, 42 miles; at 14 knots, 21 miles.

A vessel capable of attaining the foregoing speeds and radius of action above and below water should certainly prove a very formidable adjunct to the coast defences of any country, and it is plain to see that the relatively sheltered waters of the Baltic would provide an ideal field for the operations of a craft of this nature. A submersible cruiser of the present dimensions would be able to weather any gale and to hold the sea for a long period. In fact, the ship is designed to carry more than 300 tons of liquid fuel, and to be able to run from the Baltic round to Russia's naval base upon the Asiatic shores of the North Pacific.

The biggest of the sea-going torpedo-boat destroyers to-day average about 1,000 tons, and these vessels have from three to four above-water launching tubes. These hornets of the sea make speeds of from 28 to 32 knots, and are absolutely defenceless against an enemy's rapid-fire guns. Here we have a boat of from 4,500 to 5,000 tons displacement, extensively armoured, and capable of firing a whole broadside of torpedoes from their sheltered positions below the waterline. But this is not all. A 4,500-ton ship is far easier to drive and to maintain at a speed more

nearly her maximum than a lightly-built surface craft of less than one-fourth this displacement. Therefore, the submarine cruiser, ton for ton, will be a far more dangerous antagonist than a similar total displacement divided among four ocean-going ordinary destroyers. Apart from this, the Russian vessel could conceal herself if she chose, and this the surface torpedo-boat cannot do.

Two unusual features of the submarine cruiser are the armoured revolving turret forward and the conning tower amidships, both of which telescope and can be housed within the contour of the protected superstructure. The questionable feature of the design is the employment of storage batteries for submerged propulsion.

The naval defence, or contact mines, 120 in number, are to be carried in one of the after compartments, where they can not only be assembled, but launched through hatches leading outboard through the bottom. The mines can be planted while the boat is submerged. The Russians know all too well the destructive power of this form of underwater attack, and a submarine vessel provides an ideal medium for sowing a field secretly. The moderate depths of the Baltic lend themselves easily to this form of sub-aquatic defence.

The largest submarines or submersibles now under construction abroad are in the neighbourhood of 800 tons submerged, and the naval world will await with interest the building and the performances of this Russian cruiser. Every material increase in the size of a submarine adds seriously to the problem of getting her rapidly submerged, and then controlling her.

Army and Navy Journal.

UNITED STATES.

ADMIRAL MAHAN ON THE SIZE OF BATTLESHIPS.—Some little time ago Rear-Admiral Mahan, in an article in *Leslie's Illustrated Weekly*, in discussing the size of battleships, expressed the opinion that the present tendency is to pass the just limit in increasing the size of battleships and not holding the balance true between concentration and distribution, the two controlling factors in all military action, whether land or sea. He sees concentration into comparatively few very big ships prevailing over distribution into a larger number of smaller, and he expresses the belief that the present tendency proceeds in large part from a misconception of what concentration of fire means. As a proposition of gunnery, concentration of fire properly means not so much the concentration of a large number of guns under one command as concentration of the same number of guns under one command upon a single object or a very few objects. He supposes a ship carrying 12 guns opposed to four carrying three each, and proceeds to show that while the larger ship might be disabling one of the four by the concentration of fire, the other three would be making a target of her. If there should be the same number of hits on both sides the larger ship would be struck four times as often as any one opponent. He does not go so far as to express a decisive conclusion as to the exact size desirable, seeking merely to present determining principles. The question in his mind is not that of an indefinite number of very big ships, but that of a division of a given tonnage among several vessels in such wise as to observe duly the two opposite requirements of concentration and distribution. "No argument," he concludes, "is needed to prove that ten ships with 14 guns each should be more efficient militarily than ten ships with ten each; but this is not under discussion. Stated briefly, a

nation can or will pay only so much money for a navy. So much money means so much tonnage. How shall that tonnage be divided and assigned to the best advantage? In a few very big ships or in more numerous smaller? The answer cannot be given irrespective of what other navies are doing, because, while in proportion of twelve to nine all the twelve can use their guns on the target, it might not be so, probably would not be, with twenty to nine. The nations, therefore, are dragging each other along on the incline of the big, bigger, biggest ship."

Army and Navy Journal.

INCREASE OF THE NAVY.—The following resolution appears in the Navy Appropriation Bill voted by Congress and the Senate:—

That for the purpose of further increasing the naval establishment of the United States the President is hereby authorized to have constructed one first-class battleship carrying as heavy armour and as powerful armament as any vessel of its class, to have the highest practicable speed and greatest desirable radius of action, and to cost, exclusive of armour and armament, not to exceed £1,485,000. Provided, that the battleship herein authorized shall be built in a Government Navy yard.

Six torpedo-boat destroyers, to have the highest practicable speed, to cost, exclusive of armour and armament, not to exceed £190,000 each.

Four submarine torpedo-boats, the amount not exceeding in the aggregate £495,787; and the sum of £258,982 is hereby appropriated for said purpose.

One transport, to cost, exclusive of armour and armament, not to exceed £370,000.

One supply ship to cost, exclusive of armour and armament, not to exceed £285,000.

Army and Navy Journal.

SERVICE IN GUNBOATS AND SMALLER VESSELS.—The Navy Department has inaugurated a system with regard to the detail of officers to the gunboats and smaller vessels. It is a well-known fact that the gunboats are excellent schools for the young officers, who are thrown on their own resources to a greater extent than in larger vessels, and quickly learn self-reliance and also confidence in their own abilities. In the future the period of duty for gunboat officers except the commander, will be one year. At the end of this period they will be detached and sent to the battleships and armoured cruisers. By this new system a greater number of officers will have the advantages of gunboat training, where their individual responsibility and range of duties are greater. Another advantage of the policy will be to make duty in gunboats and small cruisers more popular, as it will not involve long separation from the fleet. It is thought that the same policy, somewhat modified, will be applied to duty in destroyers. In this service, however, young officers will probably remain two years. It is believed that this method of detailing officers will be an improvement, and will tend towards a rapid development in the all-round efficiency of the younger officers, on account of the greater variety of experience they will gain in their earlier years.

Army and Navy Journal.

GENERAL.

CALIBRES OF GUNS.—Germany and the United States have built guns of 14-inch calibre 45-calibres long, as is the English 13.5-inch gun, with shells weighing 1,360 to 1,400 pounds. Their initial velocity is in the

neighbourhood of 2,600 foot-seconds, the muzzle velocity being no greater than in the guns of the "Orion," the penetration at long ranges being the same. Now, Krupp has a new model 14-inch, 50-calibre long, with an initial velocity of 2,950 foot-seconds. England, fearing lest she be left behind, has designed for the "King George V." a 13.5-inch gun having a projectile of 1,400 pounds and a muzzle velocity of 3,017 foot-seconds. This is demanding a power in the larger calibre proportionately equal to that expected in the 12-inch.

Almost immediately there have resulted fractures of tubes, and even the bursting of a gun. This has caused an adoption of a higher calibre for the "Warspite" class, that of a 15-inch gun, with a shell weighing 1,716 pounds. The proposed initial velocity is not known. The shell appears rather light for the increase in calibre. Accuracy at long ranges is sought for. The decisive range of action has in five years grown from 6,000 to 10,000 yards.

The reduction from ten guns to eight guns in the "Warspite" class does not seem logical. The weight of the broadside has diminished in spite of the increase of calibre; the "Orion's" is 12,320 pounds, the "King George V.'s" is 13,970 pounds, the "Warspite's" is 13,728 pounds. Above all, in comparing value of gun fire its rapidity should be considered, and if this 15-inch gun fires as rapidly as do the 12-inch and 13.5-inch guns there will be only 16 shells per minute in place of 20, a very considerable difference.

We consider the 12 guns of our "Normandie" better than the eight of the "Warspite."

HENRI BERNAY in *Le Yacht*, from *Naval Institute Proceedings*.

MILITARY NOTES.

BRITISH EMPIRE.

THE KING'S MESSAGE TO THE ALDERSHOT COMMAND.

On May 14 the King concluded his visit to Aldershot. The following message to Lieut.-General Sir Douglas Haig was communicated to the troops by His Majesty's command:—

Royal Pavilion, Aldershot Camp.

"On the conclusion of my visit I wish to express my satisfaction with the energy and progress which characterize the whole life of the Aldershot Command.

"I was glad to find a marked development in the work and administration of the Royal Flying Corps and that courage and *esprit de corps* animate all ranks of this newly-formed arm. The display by the 5th Dragoon Guards was an interesting example of the improved training of recruits and horses throughout the cavalry, which I understand is largely due to the system in force at the Cavalry School. It was gratifying to see the keen manner in which the Territorials were carrying out their training under somewhat unfavourable weather conditions, and to realize that officers and men were giving up their short holiday to make themselves efficient members of our Citizen Army. In the Officers' Gymkhana Club and the recent great increase of recreation grounds for the men I recognize that physical exercises and sport are not overlooked as essential factors in the training of the soldier.

"The Queen and I always enjoy passing a few days in the camp, and it is especially satisfactory to me that I have these opportunities of seeing the different arms of the service at their ordinary daily training.

GEORGE R.I."

May 14, 1913.

The following are the principal promotions and retirements for May :—
PROMOTION.—Colonel (temporary Brig.-General) F. J. Davies, C.B., to Major-General, May 18.

RETIREMENT.—Major-General F. A. Bowles, C.B., May 18.

MOTOR CYCLISTS FOR DESPATCH RIDING.—The following was issued by the War Office on May 21 in continuation of previous information on the same subject :—

Under the terms of a Special Army Order dated May 20, 1913, the motor cyclists required for the Signal Service of the Expeditionary Force are to be enlisted under the conditions applying to category (a) of the Special Reserve, with certain special conditions added thereto. These men will be enlisted into the Royal Engineers, Special Reserve, Motor Cyclist Section, and on final approval will be promoted corporal. This promotion carries with it the privilege of belonging to the sergeants' mess of Royal Engineer units.

The age for enlistment will be from 18 to 30 years, and enlistment will be for a period of four years; re-engagements for periods of two years may be sanctioned up to the age of 40. The recruit training will consist of not less than seven, nor more than 15 days' continuous training, and annual training will consist of 15 consecutive days' training. When up for training, or when specially employed with their own consent, motor cyclists will draw the pay and allowances of non-commissioned officers of corresponding rank in other branches of the Special Reserve, Royal Engineers, but will not draw engineer pay. They will also draw certain training and non-training bounties, and a special motor cycle allowance of 8s. a day for each day of training or special employment to meet the expenses entailed in maintaining a motor cycle coming up to the required specification. This motor cycle allowance is also to cover the cost of petrol and wear and tear, and all liability for damage.

The Motor Cyclist Section will consist of a number of detachments, each detachment being attached to a Regular unit of the Army Signal Service. The Army Signal unit will be responsible for training the motor cyclists who will usually belong to it in war, and the motor cyclists will thus be enabled to get to know their comrades of the Regulars.

Each of the detachments of the Motor Cyclist Section includes one or two sergeants and one, two or three artificer-corporals, according to the strength of the detachments. These artificer-corporals will be men capable of carrying out repairs to motor cycles; they will, before enlistment, be required to produce a certificate of proficiency at their trade, and will receive a special rate of pay which has been fixed at 3s., the other corporals receiving pay at 2s. 6d. a day.

Before a man is accepted for service, his motor cycle will be inspected. This inspection will be arranged for by the Motor Cyclist Reserve Committee of the district in which the motor cyclist resides. Further inspections will be made in the spring of each year, and on the purchase of a new machine.

No expenses of any kind will be admissible from Army funds in connection with these inspections.

Forfeiture of bounties is entailed should the owner's motor cycle, in the opinion of the inspecting officer, be in an unserviceable condition at the periodical inspection or when the motor cyclist comes up for annual training. It is of the greatest importance that the motor cyclist should be ready with his motor cycle on mobilization.

In addition to the clothing and necessaries provided by the War Department, the motor cyclist will be required to provide himself with certain articles, including a suit of overalls, gauntlets and goggles; to assist him in meeting this outlay a special clothing allowance of 6d. a day will be issued for every day for which he receives pay.

When mobilization is ordered, the motor cyclist will be required to report himself with his motor cycle and its spare parts, clothing and necessaries all complete, where ordered, and his motor cycle will then be taken over at a valuation, or be replaced by a new one. The valuation of the machine will be based on the certified purchase price, a reduction being made in proportion to the life of the machine; the price to be paid in any case will not be less than 30 per cent. of the original cost. The motor cyclist will also receive an allowance of 15s. for the overalls, gauntlets and goggles if they are in a serviceable condition.

The call for names of gentlemen with the necessary qualifications willing to serve on the Motor Cyclist Reserve Committees has met with a gratifying response, and it is confidently hoped that the motor cyclists for the Expeditionary Force will be enlisted up to the full establishment within a short time, now that the necessary machinery has been set in motion.

The conditions for enlistment of motor cyclists required in the Territorial Force will be published shortly.

Training Arrangements for Regular Troops in 1913.

NOTE.—During divisional training and subsequent training, until the termination of Army Manœuvres, divisional mounted troops for the 1st, 2nd, 3rd and 4th Divisions will be furnished by three squadrons 15th Hussars and one company M.I., supplemented from September 13—27 by the Kent Cyclist Battalion.

Aldershot Command.

1ST CAVALRY BRIGADE.—*Brigade Training*, June 20 to July 12, Aldershot and vicinity. *Divisional Training*, July 14 to August 9, training in conjunction with the 1st and 2nd Divisions, Aldershot and vicinity. *Divisional and Command Exercises*, September 12 to September 21 in manœuvre area. *Army Manœuvres*, September 22 to September 28. *Inspection of 1st Cavalry Brigade* by I.G.H.F. on August 7 and 8.

1ST AND 2ND DIVISIONS.—*Brigade Training*, June 30 to July 12, Aldershot and vicinity. *Divisional Training*, July 14 to August 9, Aldershot and vicinity. *Divisional and Command Exercises*, September 12 to September 21, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

19TH HUSSARS¹.—*Brigade Training*, September 14 to September 20, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

¹ Forms part of Provisional Cavalry Brigade.

Southern Command.

2ND CAVALRY BRIGADE.—*Brigade Training*, August 20 to September 2, on Salisbury Plain. *Divisional Training*, September 9 to September 21, training in conjunction with 3rd Division in manœuvre area. *Army Manœuvres*, September 22 to September 28.

3RD DIVISION (7TH INFANTRY BRIGADE).—*Brigade Training*, August 1 to August 9, in neighbourhood of Marlborough. *Divisional Training*, September 9 to September 21, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

3RD DIVISION (8TH AND 9TH INFANTRY BRIGADES).—*Brigade Training*, August 26 to September 3, Salisbury Plain. *Divisional Training*, September 9 to September 21, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

Eastern Command.

4TH CAVALRY BRIGADE.—*Brigade Training*, September 1 to September 13, in manœuvre area. *Divisional Training*, in conjunction with the 4th Division, September 14 to September 20, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

4TH DIVISION (10TH, 11TH AND 12TH INFANTRY BRIGADES).—*Brigade Training*, September 1 to September 10, in manœuvre area. *Divisional Training*, September 11 to September 20, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

London District.

COMPOSITE REGIMENT, HOUSEHOLD CAVALRY (Forms part of Provisional Cavalry Brigade).—*Brigade Training*, September 14 to September 20, in manœuvre area. *Army Manœuvres*, September 22 to September 28.

4TH INFANTRY BRIGADE (FOOT GUARDS).—*Brigade Training*, August 30 to September 13, near Marlow. *Divisional and Command Exercises*, September 14 to September 20, near Marlow. *Army Manœuvres*, September 22 to September 28.

Irish Command.

3RD CAVALRY BRIGADE.—*Brigade Training*, July 22 to August 16, at Curragh. *Divisional Training*, September 1 to September 6, training in conjunction with 5th and 6th Divisions,² in manœuvre area, Ireland. *Divisional and Command Exercises*, September 14 to September 19, in manœuvre area, Ireland. *Inspection of 3rd Cavalry Brigade by I.G.H.F.* on August 12 and 13.

5TH DIVISION (13TH INFANTRY BRIGADE).—*Brigade Training*, August 9 to August 23, at Shillelagh; **14TH INFANTRY BRIGADE**, August 11 to August 23, at Colbinstown; **15TH INFANTRY BRIGADE**, August 11 to August 23, at Armagh. *Divisional Training*, September 1 to September 6, in manœuvre area, Ireland. *Divisional and Command Exercises*, September 14 to September 19, in manœuvre area, Ireland.

6TH DIVISION (16TH AND 17TH INFANTRY BRIGADES).—*Brigade Training*, August 10 to August 23, in vicinity of Lisnagar. *Divisional Training*,

² Four squadrons only of the 3rd Cavalry Brigade will take part in divisional training, two of which will be attached to each of the 5th and 6th Divisions.

September 4 to September 10, in manœuvre area, Ireland. *Divisional and Command Exercises*, September 14 to September 19, in manœuvre area, Ireland. *Inspection of 5th and 6th Divisions* by I.G.H.F., September 8 to 13.

Northern Command.

2ND DRAGOONS (Forms part of Provisional Cavalry Brigade).—*Brigade Training*, September 14 to September 20, in manœuvre area. *Army Manœuvres*, September 22 to September 28 in manœuvre area.

18TH INFANTRY BRIGADE.—*Brigade Training*, August 10 to August 23, in Kilworth, Ireland. *Divisional Training*, September 4 to September 10, in manœuvre area, Ireland. *Divisional and Command Exercises*, September 14 to September 19, in manœuvre area, Ireland. *Army Manœuvres*, September 22 to September 28, in manœuvre area.

Australia.

REGISTRATIONS UNDER DEFENCE ACT.—Under the clause of the Commonwealth Defence Act relating to compulsory training, a total of 184,328 persons had registered their names for military training up to December 31, 1912. Of these 73,242 were exempted from various causes (61,593 being temporarily exempted through residing over five miles from a training locality); 108,752 were liable for training, and 105,725 were actually undergoing training.

South Africa.

SUSPENSION OF CLAUSES OF DEFENCE ACT.—Owing to the satisfactory result of the registration for voluntary service, the clauses in the Defence Law providing for the ballot in case of deficiency, have been suspended during the year 1913.

BASUTOLAND.—Owing to the fact that Letsie, the late Paramount Chief of Basutoland who died last January, left no legitimate heir, a meeting of chiefs discussed the succession, and decided to nominate Griffith, brother of Letsie, as Paramount Chief. He was installed by Lord Gladstone on April 11.

ARGENTINA.

BUDGET.—The Military Estimates for 1913 amount to £2,606,061, an increase of £62,545 over the amount authorized by the Budget Law for 1912. There is also a special vote for naval and military acquisitions amounting to £899,563.

CAMELS.—A decree has been passed authorizing the importation of camels. Precautionary regulations have been laid down to guard against the introduction of trypanosomiasis epizootica.

BELGIUM.

THE ARMY REORGANIZATION.—The projected scheme of Army reorganization was further discussed by the Chamber during April.

The Flemish section of the Right energetically demanded the organization of Flemings and Walloons in separate regiments; this was opposed by other sections, as likely to lead to the eventual disruption of the country.

PEACE STRENGTH OF THE ARMY.—A Royal Decree of April 21 abolished the figure 42,800 as the maximum peace strength of the Army, which must not be exceeded.

FORTRESS OF ANTWERP.—Work on the defence of Antwerp continues, and considerable progress has been made. The command of the fortress in case of siege was reorganized by a Royal decree of April 10. Under the military governor there are seven sectors, each under a general or superior officer. The second line, or new *enceinte*, forms one sector; the outer line, or entrenched camp, is divided into six sectors.

MANCEUVRES.—It is reported that manoeuvres on a large scale will take place this year in the valley of the Meuse; and that for these manoeuvres all staffs will be made up to war strength by the addition of the actual officers who would be posted to them on mobilization.

MILITARY ATTACHÉS.—The following officers have been appointed to the newly-created posts of military attachés: London, Captain Commandant Maton; Paris, Major Collon; Berlin, Captain Commandant Chevalier de Melotte.

UNIFORMS.—New uniforms have been adopted for the officers of the Army; the new *tenue de campagne* appears, however, to be not very much more practical than the old one.

CHANGES IN ARMAMENT.—A commission has been appointed to decide upon the type of heavy ordnance for the Field Army.

A commission has also been appointed to study the question of the adoption of an automatic rifle. The rifle to be adopted must be suitable for both infantry and cavalry, and must be manufactured in Belgium.

The whole of the independent cavalry is to be armed with a steel tube lance. The question of carrying the carbine on the saddle in the British fashion is under discussion.

PURCHASE OF REMOUNTS IN IRELAND.—A purchasing commission was due to start for Ireland on April 26, to purchase 60 officers' chargers, and 720 horses for cavalry and artillery.

Belgian Congo.

TELEGRAPHS.—Communication by wireless telegraphy is now established along the whole course of the Congo, Lualaba and Lufira rivers, from the Rhodesian border at Elizabethville to the Atlantic at Boma. There are 11 stations in all, and the station at Boma communicates with the French station at Loango, which is also a submarine cable station.

In addition to wireless, about 2,170 miles of telegraph line are working in the colony.

CHILE.

BUDGET.—The Budget Law for 1913 fixes ordinary military expenditure at £1,823,793. This represents an increase of nearly seven per cent. over the sum authorized for 1912.

MOUNTAIN GUNS.—The House of Deputies has passed a vote approving of the decision taken by the Government in July, 1911, with regard to the purchase of mountain guns from Krupp instead of from Ehrhardt. Discussions in the Press by officers as regards the merits and demerits of these rival firms has been forbidden.

OFFICERS.—An officer has been nominated for a period of study at the French school at Fontainebleau.

CHINA.

RAILWAYS.—The recently completed Tientsin—Pu-k'ou trunk line has proved a remarkable success, and both passenger and freight traffic along the whole course of the railway has been very good.

Reuter's correspondent in Peking, in a telegram to the *Morning Post*, dated April 1, stated that the Chinese Government has now decided to construct an important railway in the Yang-tzu valley, which will connect the Pu-k'ou terminus of the trunk line with Hsin-yang Chou, an important station on the Peking-Hankow railway, 170 miles North of Hankow. The concession for this railway was granted to the British Corporation in 1898. The length of the proposed line will be 260 miles, and it will run through a thickly-peopled country. The estimated cost is £2,000,000. The Government has appointed Mr. Bourne as chief engineer of the line. Mr. Bourne, who has had exceptional experience on many important railways in China, leaves Peking early in April to begin the survey for the line.

IMPORTATION OF ARMS AND AMMUNITION.—The *North China Daily News* states that a strengthening of the power of the Central Government over the provinces is evidenced by the control now being exercised over the purchase of arms and ammunition. Formerly, provincial authorities made their own arrangements with the importers of arms, and had authority to pass them through the ports, now this can be done only with the sanction of Peking. Negotiations for the purchase of rifles are being largely conducted in Manchuria, and three leading German firms are in keen competition. The reason for what would appear to be almost a German monopoly in this direction is that the Chinese want the '88 Mauser rifle, a weapon which can be purchased more cheaply than they can turn it out themselves.

FRANCE. (*Events in April, 1913.*)

THREE YEARS BILL.—Agitations for and against the reintroduction of three years' service were continued during April. The two Vice-Presidents of the Army Commission of the Chamber produced an alternative proposition, and it seemed probable that this would be adopted instead of the Government Bill, or that the latter would be amended so as to bring it into harmony with the *Contre projet Reinach-de Montebello*.

The chief feature of the *Contre projet* was that it makes the *Conseil Supérieur de la Guerre* fix the peace strength of the various units of the Army, and that it lays down that on no account must the Army be allowed to fall below this strength; but that if the strength is in excess of the numbers fixed by the *Conseil Supérieur* then men who have completed two years' service, and whose conduct has been satisfactory, may be sent on furlough till their incorporation in the reserve, if they fall into the following categories:—(a) Fathers of two children or more who are still alive (legitimate or illegitimate); (b) members of families of six or more children living; (c) members of families of five or more children living; (d) members of families of four or more children living; (e) those men who before incorporation in the contingent were the indispensable support of their families.

This scheme also is devised to increase the numbers of voluntarily engaged men, and allows that particular form of voluntary engagement called *Devancement d'appel* to a total of ten per cent., instead of four per cent. as formerly.

Since the publication of this revised scheme the *Conseil Supérieur de la Guerre* has given its decision as to the necessary number of men for various units as follows:—

		Nos. for incorporation.	Minimum numbers below which strength must not be reduced by furlough or wastage.
<i>Infantry.</i> —Company : <i>de couverture</i> ..	...	220	200
<i>de l'intérieur</i> ..	...	154	140
<i>Cavalry.</i> —Regiment : <i>de couverture</i> ..	...	810	740
<i>de l'intérieur</i> ..	...	
<i>Artillery.</i> —Horse Battery : <i>de couverture</i> ..	...	192	175
<i>de l'intérieur</i> ..	...	
Mountain <i>de couverture</i> ..	...	154	140
Field <i>de couverture</i> ..	...	154	140
" <i>de l'intérieur</i> ..	...	121	110
Garrison <i>de couverture</i> ..	...	176	160
<i>de l'intérieur</i> ..	...	132	120
<i>Engineers.</i> —Company : <i>de couverture</i> ..	...	220	200
<i>de l'intérieur</i> ..	...	154	140
<i>Aeronautique.</i> — <i>Section d'aviation</i> ..	...	66	60
<i>Campagne d'aérostation</i> ..	...	165	150

It will be noticed that the numbers for incorporation allow for ten per cent. reduction by wastage and by furlough of men serving their third year.

The War Minister stated before the Army Commission that he agreed with the principle of having the effectives fixed, and that he agreed with the numbers adopted by the *Conseil Supérieur*.

If these figures are agreed to, the covering troops will be increased by some 20,000 men.

General Legrand, second *Sous Chef* of the General Staff, stated before the Army Commission of the Chamber that the peace strength of the French Army this year is 462,000 men. Under the terms of the Reinach-Montebello scheme it would be 658,000 on incorporation, with a minimum of 600,000.

NEW BULLET.—According to the *Temps*, experiments are being carried out with a new bullet, the *balle Derguesse*, which is said to possess many advantages over the old bullet; it has greater penetration and does not cause the same amount of wear in the barrel of the rifle. Its disadvantages are that it is difficult to obtain enough of the metal required for its manufacture, and that it is expensive. Apparently it is a question as to whether France will have to adopt a new rifle or a new bullet.

INSOUMIS.—During the debate on the Amnesty Bill on March 28, the War Minister gave the following figures as to deserters and *insoumis* :—

In 1906 there were 10,082 <i>insoumis</i> and 3,169 deserters.			
" 1907 " 10,630	" 3,437	" 3,437	" 3,437
" 1908 " 9,378	" 3,129	" 3,129	" 3,129
" 1909 " 10,409	" 2,682	" 2,682	" 2,682
" 1910 " 9,629	" 2,626	" 2,626	" 2,626
" 1911 " 9,786	" 2,548	" 2,548	" 2,548
" 1912 " 9,666	" 2,496	" 2,496	" 2,496

French Colonies.

WEST AFRICA.—On March 10, when returning from the pursuit of the *rezzou* which attacked Capitaine Martin's force, Lieut.-Colonel Mouret's column was attacked near Tezadit by 600 Maroccans, commanded by the brother of the Moroccan Pretender, El Hiba. The Maroccans were heavily defeated, and when put to flight left 45 dead on the field.

The French losses are reported to be:—*Europeans*: killed, two officers; wounded, one officer, two *sous officers*. *Native troops*: killed, 22; wounded, 35.

The Dahomey railway has now opened a new section from Sakété to Pobé.

EQUATORIAL AFRICA.—Up till February of this year there had been a total prohibition as regards the importation of arms into Equatorial Africa in accordance with the Brussels Treaty of 1908. A new decree, dated April 9, 1913, now permits the importation of arms and ammunition within certain limits and with the consent of local authorities. The only fire arms allowed are so-called trade weapons, smooth bores without an adjustable back sight, and actuated by flint locks or percussion caps. A permit to possess a gun is required, and ammunition which is stored in Government charge is only issued on a requisition signed by the local Government authority.

Marocco. (Events in April, 1913).

TRIBAL UNREST.—During April the situation noticeably improved in South and Central Marocco, but the unrest appeared to be spreading to Eastern Marocco.

SOUTHERN MAROCO.—In Southern Marocco, in spite of a very active propaganda and the somewhat half-hearted support of Kaid Anflous, El Hiba appeared to be losing influence. A large proportion of his followers had abandoned his cause, including some of those who have been most closely associated with him. Various Kaids of the Sultan were said to be preparing forces with which to turn him out of Taroudant, and had already had some preliminary successes in fights with some of his detached forces.

TADLA REGION AND WAD ZEM.—In the Tadla region the success gained by Colonel Simon near the Wad Zem on March 18 had a good effect, but did not put an end to the unrest thereabouts. At the end of March the local situation was as follows: Colonel Mangin had assembled at the Wad Zem post seven battalions (four European, two Algerian, one Senegalese), two field batteries, two mountain batteries, and three squadrons. At Kasbah Tadla, 25 miles east of the post, a Berber chief was assembling a hostile force; 15 miles north of the post the well-known Zaian chief, Moha-ou-Hamou, whose tribe had never been subdued by any Moorish Government since the seventeenth century, had assembled 2,000 Zaian, and could count on the support of the local Smalha tribes. South of the post the Beni Moussa and Beni Amir tribes were ready to revolt, but were awaiting an opportunity to join Moha-ou-Hamou.

March 26, 27.—Colonel Mangin determined to strike first at Moha-ou-Hamou. He left one Algerian battery and one field battery to hold the post, and started at midnight with 3,800 men. At daybreak the Smalha tribesmen holding the village of Mechra Braksa opposed the column, but the village was stormed without much difficulty. Here the ground became too bad for the field battery, which was left at Mechra

Braksa under guard of one European battalion, and the march was continued. The firing had roused the Smalha tribesmen, who now attacked the left flank of the column in considerable force. The Senegalese battalion was left to hold them off, while the remainder continued the movement on the Zaian encampment. At 9.45 a.m. it was sighted two and a half miles off, and a squadron of spahis was at once sent to seize it. The squadron charged the camp, cut down the defenders, and captured a large quantity of arms, ammunition, animals, and 300 tents. The squadron, although running out of ammunition and hard pressed, managed to hold the camp and the captured stock until the arrival of the infantry, after 10.30 a.m.

The Zaian were driven off and pursued some way, losing heavily. The column then had to return to disengage the Senegalese battalion, which was heavily attacked by the Smalha, and unable to move to rejoin the main body, although able to hold its own in the strong position it was in. The whole then moved back to Mechra Braksa, which had also been unsuccessfully attacked by the Smalha; at 5 p.m. the column went into bivouac there. French casualties: seven killed and 14 wounded.

April 7.—Colonel Mangin, with about 4,000 men of all arms, dispersed the Berber force near Kasbah Tadla, and seized the Kasbah (fort). French casualties: two killed and 29 wounded.

These successes had an excellent effect, and during the month a large number of tribes in the Tadla region have made their submission.

NEAR MEKNÉS.—Near Meknés, Colonel Henrys, who disposes of about six battalions, with cavalry and artillery, has continued his operations.

March 24.—Colonel Henrys dispersed the insurgent Beni M'Tir and Beni Guild near El Hajeb. The enemy left 70 dead and 40 wounded on the ground. French casualties: four killed and 21 wounded.

April 2.—Colonel Henrys surprised and raided a number of camps of the insurgent tribes near Tigrigra, about 70 kilometres south-south-west of Meknés.

April 18-23.—Colonel Henrys dispersed various small bands of rebels. French casualties two wounded.

The majority of the Guérouan, and a large number of the Beni M'Tir, Beni M'Guild and Ait Youssi have made their submission; the district is becoming quiet.

EASTERN MOROCCO: April 5.—General Giradot's column had a skirmish with some Beni Ouarain on the right bank of the Moulouya. French casualty: one wounded.

April 9.—Whilst preparing for a forward movement from Merada in the direction of Taza, General Giradot was attacked at Nekhila by the local tribes. Various attacks took place between 2 p.m. and 2 a.m. The French column consisted of one or two battalions, some cavalry, some field artillery, and a native squadron and two "goums." A searchlight section is said to have proved very useful. French casualties: two killed and seven wounded.

April 10.—A section of the Foreign Legion, patrolling near the camp, fell into an ambuscade; one officer and six men were killed, and one officer and nine men were wounded.

April 19.—General Alix, having taken over the command of the forces at Merada, made a night march and surprised 2,000 of the enemy near Nekhila. French casualties: five killed and 21 wounded.

April 22-23.—The post at Nekhila was attacked during the night. French casualties: six wounded. The post at Safsafat was also threatened.

A force of hostile tribesmen was said to be collecting in the south of the Spanish zone, with the intention of attacking the French when their advance in the direction of Taza should begin.

FRENCH FORCES IN MAROCCO.—Of the newly-formed regiments of *Tirailleurs indigènes* (Algerians and Tunisians) the following were stationed in Marocco at the end of April:

West Marocco.—5th Regiment (2nd, 6th, 7th Battalions of old 1st Regiment. 7th Regiment (1st, 4th, 6th, 7th Battalions of old 3rd Regiment). 8th Regiment (4th, 6th, 7th, 8th, 9th, 10th Battalions of old 4th Regiment).

East Marocco.—6th Regiment (2nd, 4th, 6th, 7th Battalions of old 2nd Regiment). 9th Regiment (1st and 5th Battalions of old 1st Regiment).

The European units of the Metropolitan Army now in Marocco are being kept up to strength, casualties being replaced periodically. Metropolitan units of the Algerian Army Corps usually do a two years' tour of duty in Marocco. Six newly-raised battalions of Senegalese were due in Marocco about the 15th ult. Five more similar battalions are expected to arrive by August next.

The question of forming mixed battalions, to include Europeans and Senegalese, is under discussion.

It has been found necessary to issue extra warm clothing to Senegalese troops serving in Marocco.

COMMUNICATIONS.—The railway from Kenitra to Meknés was working as far as Dar-el-lamri (67th kilometre) by the middle of April.

The railway from Oudjda has reached Taourirt, and the first train crossed the Wad Za on April 9.

The Franco-Spanish line from Tangier to Fez is to run from Tangier, El Ksar and Meknés to Fez; between El Ksar and Meknés it will connect with the Kenitra—Meknés line, which will connect by Mehedia with the Rabat—Casablanca line. Work on the section between Kenitra and Rabat has commenced. From Fez it is intended to extend the line eastwards to connect with Oudjda—Taourirt line.

The road from Mazagan to Marrakesch is reported to be practicable for ordinary motors.

Fez, Meknés and Rabat, and the ports south of the latter, are connected by telegraph lines.

FRANCO-SPANISH TREATY.—The French and Spanish Governments have ratified the treaty fixing the limits of the French and Spanish spheres in Marocco. Under this treaty the French claim to have gained about 17,000 square miles of territory, formerly claimed by Spain. A commission has been appointed to delimitate the frontier.

FINANCIAL.—On March 28 the Chamber passed a supplementary credit for the expenditure of 1912 concerning Marocco. This is allotted as follows:—Minister of War: Metropolitan troops, £4,694,043, Colonial troops, £584,251; Minister of Marine, £60,800; total £5,339,094.

The Chamber is also considering a proposal to authorize the Government of Marocco to borrow £9,200,000, to be expended chiefly on public works. The most important of these is the construction of a port at Casablanca, to cost about £1,600,000.

ADMINISTRATION.—The Shawia has been transferred from the military to the civil administration from April 1.

GERMANY.

WIRELESS INSTALLATION AT AACHEN.—A wireless installation has been erected at Aachen to receive messages from Norddeich. The station is linked up with the post office, and is under the control of the military authorities.

INFANTRY SHIELDS.—Experiments have been taking place with a new model of shield for infantry. The shield is designed to cover infantry lying down, and is said to weigh five kilogrammes.

THE FIELD GREY UNIFORM.—According to a statement in the Reichstag the whole of the war clothing of field grey material is complete, and a peace outfit of the material will be ready for the infantry this year, for the cavalry in 1914, for the artillery, pioneers and communication troops in 1915.

German Colonies.

GERMAN SOUTH-WEST AFRICA.—The death of Simon Kopper is reported to have taken place on January 31. This chief had in his time been the cause of much trouble to the Germans.

GERMAN EAST AFRICA.—The wireless station at Dar-es-Salam was open for business on March 20. It has a range of 1,100 kilometres under the most adverse atmospheric conditions. It is primarily intended for communication with ships at sea, but will be able to keep touch with Muansa on Lake Victoria Nyanza.

TOGOLAND.—The telegraph line Bimbila—Sansane—Mangu was opened on March 1.

CAMEROONS.—The British and German commissions completed the demarcation of the Northern Nigeria—Cameroons section of the boundary early in February. It was expected that the whole of the work on the Southern Nigeria—Cameroons section would be completed in April.

The party which is at present engaged in delimiting the southern frontier of the Cameroons has met with considerable opposition from the natives.

HOLLAND.

DUTCH COAST DEFENCE BILL.—The Second Chamber commenced the debate on the Dutch Coast Defence Bill on April 23. The Bill met with a considerable amount of opposition so far as the building of a fort at Flushing was concerned.

NEW ORGANIZATION.—The reorganization of the infantry and fortress artillery took place from April 1. Some of the units, however, will not be formed until October.

COOKING WAGONS.—One hundred cooking wagons have been ordered to be ready by August 1. They will be allotted to the 2nd and 4th Divisions, which are to take part in Army manoeuvres this autumn.

VOLUNTEER MOTOR CORPS.—A volunteer motor corps has been formed. The members bind themselves to place themselves and their cars at the disposal of the military authority in the event of war or a national emergency.

MAXIM-GUN ON A MOTOR CYCLE.—A trial was held in the presence of the War Minister of a Maxim-gun mounted on a motor bicycle. The trial is stated to have been thoroughly satisfactory.

ITALY.

BARRACKS.—£1,000,000 will be spent upon barracks and stables for the new regiments of artillery, machine-gun sections, cyclist battalions, and nuclei of mobile militia, and for hospitals and mobilization stores.

The expenditure will be spread over a period of six years.

TURCO-ITALIAN CAMPAIGN, CASUALTIES.—The following numbers of casualties have been published. They occurred during the regular campaign against the Turks:—

Officers and men: killed, 1121; missing, 311; wounded, 4,250; deaths from disease, 1,948.

Libya. (Events in March and April).

OPERATIONS NEAR TRIPOLI.—General Lequio formed a mixed division of the following troops quartered near Gharian and Aziziah:—

Infantry: four battalions Alpini, three battalions Bersaglieri, four line battalions.

Artillery: two mountain batteries, one battery 75.A., one Native battery on camels.

Cavalry: two squadrons Lodi Regiment, one Native squadron.

Irregular Troops: one Libyan and one or two Eritrean companies.

One or two engineer companies, transport and ambulance sections.

The objects of the proposed operations were to overthrow El Baruni, to prevent the contraband trade from Tunis, and to occupy the country from Orfella, 60 miles south of Misurata, by Gharian, to Nalut.

The advance began on March 23 in three columns, the main body under General Montuori, accompanied by General Lequio, from Tebadut, seven miles south-west of Gharian, a column under Colonel Pontremoli, from Gharian and a mixed column of cavalry and native troops under Colonel Fabri from Aziziah. The general direction of the advance was towards Rabta Garbia, 14 miles west of Gharian, and Misga, 18 miles south-west of Gharian.

There was some sharp fighting, especially near Assaba, midway between Rabta Garbia and Misga, the Italians losing 24 killed and 133 wounded, and 220 Arab bodies being found on the field. Kikla, 25 miles west of Gharian, was occupied on March 25, and Sadna, five miles south-west of Kikla on the 26th.

The Arab chiefs then submitted to General Lequio, and Jefren, 37 miles west of Gharian, was occupied on March 27. Rumia, five miles south of Jefren was occupied on March 28, and a convoy of motor lorries from Tripoli, via Gharian, reached Jefren on the same day.

On April 12 Nalut was occupied by General Lequio, and a wireless station erected there. Flying columns are now being sent to different places in the Gebel, and are received well everywhere, and El Baruni's influence appears to be at an end.

OPERATIONS IN CYRENAICA.—Towards the middle of March a number of hired transports were collected at Genoa, and after embarking stores, and some troops at Naples, sailed for Libya. The bulk of the troops, however, were embarked at Tobruk, and the convoy, escorted by a division of the first squadron of the Navy, proceeded to Benghasi.

The composition of the force is not known, but it was probably seven or eight battalions, with some batteries, engineers, and native

troops. General Tassoni was in command. The force began its disembarkation at Tolmeita, 70 miles north-north-east of Benghasi, at five a.m. on April 4th. The rafts and a large number of sailing boats were used to land the troops. A strong wind sprang up and one raft was upset, drowning one officer and 16 men. The rough weather continued and five battalions only were disembarked by the evening. The remainder of the men landed on the 12th, but the whole of the horses and stores did not land till the 18th.

The Arabs offered very slight opposition, and on April 19 General Tassoni seized Merg, an important town 16 miles south of Tolmeita, which stands at the junction of several caravan roads running from Egypt by Tobruk and Derna to Benghasi.

Meanwhile General Briccola had kept a strong force of all arms ready to march at a moment's notice from Benghasi.

On the night of April 12-13 a Turkish battery fired on Fort Luesci, east of Benghasi, from Cioh Kebir, further to the east. The guns of the fort did not reply, but at 5.30 a.m. on the 13th General Briccola advanced against the Turco-Arab camp. General d'Alessandro commanded the force, which consisted of: *Main column*, under General Marghieri, six battalions, three batteries and some Libyan mounted irregulars from Fort Luesci. *Left column*, one battalion and a battery at Fort Artesiano, just north-west of Fort Luesci. *Left flank guard*, one company infantry and one native company at Fort Palmeto, north-east of Fort Artesiano. On the *right*, south of Fort Luesci, two squadrons Italian and one squadron native cavalry, and in the oasis of the Two Palms, between Forts Luesci and Fuejhat, two battalions. *The reserve* consisted of an Eritrean battalion, a company of Benghasi Ascaris, and a mountain battery. Two batteries of 149 mm. howitzers accompanied the force from Fort Luesci.

The force moved east and then south, and by 3.30 p.m. the main Arab camp at Benina, 15 miles east of Benghasi, was taken. The Italians lost four killed and 45 wounded, and the Arabs left 50 dead.

Enormous quantities of rice, coffee, barley and sugar were found, in addition to stores of ammunition, clothing and equipment. Except for some old men and women, about 80 in all, the camp was deserted.

On the 17th the whole of the Brachta tribe, from near Koebia, 2,500 men, with 1,000 rifles, surrendered. Koebia, ten miles south of Benghasi, was occupied on the 16th.

HARBOURS.—A good harbour, which is being built at Tripoli at a contract price of £640,000, will be finished by July this year. The water will be 50 feet deep in places. At Benghasi a harbour is being built at a cost of £160,000, and £160,000 is also being spent at Derna on harbour improvements.

COMMUNICATIONS.—A coast railway is being made from the Tunisian frontier to Misurata, and eventually from Benghasi to the Egyptian frontier. The gauge will be one metre and the track single. The Tripoli—Gharian railway has reached Azizia.

At Tripoli, Homs, Misurata, Benghasi, Derna and Tobruk, there are automobile parks; 210 motor cars are at Tripoli, and the remainder amount to about 290 in all. The type of car used is a 25/30-h.p. Fiat, lorry body and pneumatic tyres, the back tyres being twin. Except after very heavy rain these motors can go anywhere, and are frequently driven straight across the desert.

JAPAN.

ARMY ESTIMATES.—The Army Estimates for the financial year 1913-14 reach the total of £9,966,607. The principal causes of the increase of £422,964 over last year are: (a) the increased cost of provisions and forage; (b) the manufacture of the new rifle; and (c) the increased cost of manoeuvres.

Among the items of expenditure are:—Pay and allowances (the largest item), £2,202,372; Secret Service, £32,596; Aeronautics, £30,625.

NEW MEDAL.—A recent Army Order provides for the grant of special medals to non-commissioned officers and men of the Army and Navy who have been wounded or disabled by causes incurred in and by their official duties.

PARAGUAY.

UNIVERSAL SERVICE.—On February 14 a decree was issued which brought into force the law of universal military service promulgated on December 23, 1910. This measure is intended to do away with the press-gang system now in vogue, and it is hoped that its operation will go far to prevent the recurrence of revolutions which have been too frequent in recent years. The decree requires all citizens between the ages of 17 and 45 to register their names at once. Conscripts will serve two years, from the ages of 18 to 20, with the Colours, from the ages of 20 to 29 in the reserve, from 29 to 39 in the National Guard, and from 39 to 45 in the Territorial Guard. The force provided for in the estimates will be recruited by drawing lots, but those who volunteer before the lots are drawn will serve one year only in lieu of two.

Non-commissioned officers of ten years' service will be eligible for employment in the police, customs, postal services, &c. Soldiers with the Colours are not permitted to take part in politics, either directly or indirectly.

GERMAN OFFICERS AS INSTRUCTORS.—According to the Press the Paraguayan Government propose to engage 12 or 14 German officers belonging to all branches of the Army as instructors in the Paraguayan Army. These officers are not to be above the rank of captain, and must have served in the German Army for at least six years, or, if they are on the retired list, they must have left the German Army within a year of their taking up their new employment.

RUSSIA.

EDUCATIONAL ESTABLISHMENTS.—The Ministry of War proposes to provide additional training facilities as follows:—

1. A new military school for field artillery will be opened at Kiev.
2. A second school for engineers will be established, and the organization existing in the artillery schools will be adopted in the engineer schools.
3. The Irkutsk Military School will be enlarged.
4. The number of students at the Staff College (Imperial Nikolas Academy) will be raised by 150, and the directing staff increased accordingly.

THE MILITARY MEDICAL ACADEMY.—Discontent among the students of the Imperial Military Medical Academy, caused by various disciplinary measures, culminated on March 22 in refusal to attend lectures and in general disorder.

The Academy was closed on 25th idem; and reopened on a new system on March 27. The new basis is strictly military; students will take the oath, and only those who have undergone four months' training in camp will be eligible to enter the senior class. The establishment will be for 850 students (523 free, 327 paying). About 220 old students have applied for re-admission. The Duma debated the question of the legality of the War Minister's action with regard to the Academy, and eventually refused the necessary credits, as a protest.

NEW FIELD AND GENERAL SERVICE UNIFORM.—The Tsar has approved a new dress for the Army (Guard units, cavalry, Cossacks, and horse artillery excepted). The object aimed at in the new uniform is to furnish one dress for the Army in peace and war. This will be a field service dress of "protective" colour, but provided with a detachable cloth plastron, badges and facings for wear in full dress. A fur cap with badge will be worn in winter, and a peaked forage cap in summer. Officers will also wear epaulettes in full dress. The 1912 pattern sword belt will be worn when with troops; at other times the sword may be worn in the old pattern shoulder sling.

TRAINING OF THE "OPOLCHENIE."—Militiamen enrolled in the 1st category of the *Opolchenie* will undergo four weeks training this year. (The Vistula Governments excepted).

OBITUARY.—General M. A. Gazeckampf, assistant to the commander of the St. Petersburg military district, and a member of the Military Council, died on April 16.

COMMUNICATIONS.—The new bridge over the Volga at Yaroslav was opened on March 6.

WIRELESS TELEGRAPHS.—A station for general use has been opened at Libau. A station is being erected at the meteorological station at Riga.

SPAIN.

BUDGET FOR 1913.—The total sum voted includes £1,657,165 for military expenditure in Marocco, and amounts altogether to £7,575,238.

INCREASE OF EFFECTIVES.—Seven thousand men have been added to the peace establishment, *viz.* :—Cavalry 1,000, engineers 2,000, intendance 1,600, medical services 400, native troops in Melilla 1,200.

The total peace establishment of the Army will be 122,000 men.

NEW RECRUITING LAW.—The new recruiting law has determined that service is personal and obligatory. Only the numbers voted for in the Budget serve, and the men are chosen by lot. The first group perform three years' service, but may be sent home after two years. The second group serve for one year. An adjournment of service up to three years is permitted for students, or men with one brother already serving. A reduction of service is allowed for men who pass tests showing their fitness to become corporals. These men must, however, pay 1,000 pesetas, buy their own equipment and horse, if mounted, and feed themselves. They are trained for ten months, four the first year, three the second, and three the third.

By paying 2,000 pesetas this period of service is reduced to five months in all, three in the first and two in the second year. The men serving under payment are known as the "do cuotas." They are very favourably treated and spend little time in barracks.

EDUCATION.—With reference to the information given on page 697 of the JOURNAL for May, 1913, youths, who have been at the military schools, and have passed the necessary examination, can be nominated corporals and sergeants. After entering their third year's service they can be made second-lieutenants in the Reserve.

Spanish North Africa.

DISPOSITION OF TROOPS.—In consequence of the Franco-Spanish Treaty, the Ceuta command will now consist of:—

Two regiments (each two battalions), four light infantry battalions, one cavalry regiment, one remount and cattle dépôt, one mixed field artillery regiment, one ammunition park, one mixed engineer regiment, one telegraph company, headquarters and section army service corps, one medical corps company, volunteer militia, native police of Tetuan.

The Ceuta Command will include Tetuan and the adjoining territory. A new General Command will also be created at Larache, south-west of Tangier, with smaller commands at El-Ksar-El-Kebir and Arsila.

The troops in the Command will be:—

Two battalions light infantry, each with a machine-gun section, one regiment of marine infantry with a machine-gun group of two sections, three cavalry squadrons, one brigade field and one brigade mountain artillery (each three batteries and ammunition column, two fortress batteries and an artillery park, one mixed brigade of engineers and one signal section, and the personnel for wireless stations in the command, two mountain companies A.S.C. and a mixed field bakery and supply company, a mixed medical company of one hospital section and a mountain ambulance, native police at Larache, El-Ksar-El-Kebir and Arsila, coast-guard, police, hospitals, &c.

SWITZERLAND.

RAILWAYS.—In spite of great opposition on the part of the Franco-Swiss Cantons, the ratification of the Gothard Convention was finally sanctioned by the Swiss Second Chamber by 33 votes to nine on April 9. Under this new Convention, Italy and Germany obtain large reductions of railway tariffs over all Swiss lines.

SMALL ARMS.—It is reported in the Press, that the military authorities have ordered 36 "Stamm" rifles for experimental purposes. This rifle is said to possess very great advantages over any rifle in the possession of any other European State.

UNITED STATES.

DISCHARGE BY PURCHASE.—A General Order of March 23, 1913, makes the following alterations in discharges by purchase.

The new rates vary according to the distance of the station from the United States as follows:—

	In the U.S.	In the Philippines.		In the U.S.	In the Philippines.
After 1 year, from...	£22	to £32	After 7 years, from...	£12	to £22
2 years, from...	20	" 30	8	" 11	" 21
3	" 18	" 28	9	" 8	" 18
4	" 17	" 27	10	" 7	" 17
5	" 16	" 26	11	" 6	" 16
6	" 13	" 23			

ARMAMENT.—The War Department has decided to begin the immediate issue of the Colt .45 automatic pistol to all branches of the service, excepting the cavalry. The cavalry is excluded because it has not yet been decided whether a trooper with his rifle and new long sword will be benefited or hindered by having a pistol to complicate his personal armament further. If no unforeseen impediment arises, the issue of this pistol to the National Guard should begin about July 12 next.

HEAVY ARTILLERY.—The 5th Field Artillery is to be fully equipped with heavy guns as follows:—Two batteries now have 4.7-inch guns; two batteries will have 4.7-inch howitzers (60-pdrs.); two batteries will have 6-inch howitzers (120-pdrs.).

NAVAL AND MILITARY CALENDAR.

MAY, 1913.

5th (Mon.) Launch of battleship "Grosser Kurfurst" from the Vulkan Yard at Stettin for the German Navy.

7th (Wed.) Launch of light cruiser "Birmingham" from the Elswick Yard of Messrs. Armstrong, Whitworth & Co.

8th (Thurs.) Launch of battleship "Alphonso XIII" at Ferrol for the Spanish Navy.

" " Australian Naval base at Cockburn Sound, near Fremantle, W.A., formally opened.

14th (Wed.) Departure of the King and Queen from Aldershot at the conclusion of their visit.

" " Scutari occupied by international force under Vice-Admiral Burney.

20th (Tues.) Departure of the King and Queen from Port Victoria for Germany.

22nd (Thurs.) Launch of Submarine A E 1, the first submarine for the Australian Navy, from Vickers' Yard at Barrow-in-Furness.

30th (Fri.) Canadian Naval Aid Bill rejected by Senate.

" " Peace Treaty signed by the Balkan Delegates at St. James' Palace.

AERONAUTICAL NOTES. BRITISH EMPIRE.

MANSION HOUSE MEETING.—On May 15 a meeting was held in the Mansion House at the suggestion of the Aerial Defence Committee of the Navy League under the presidency of the Lord Mayor.

Admiral of the Fleet Sir E. Seymour, G.C.B., proposed that :—

“ In the opinion of this non-political and non-party meeting of the citizens of London, aerial supremacy has now become so important a factor in warfare as to render it absolutely necessary that Great Britain should forthwith take the necessary steps to achieve complete security against attack in the air.”

Admiral Sir John Hopkins seconded the resolution, which was carried unanimously.

The Duke of Argyll moved that :—

“ In view of the rapid development of aircraft for defence, and the large sums provided by foreign Governments for the construction of airships, aeroplanes, and auxiliary equipment, the time has come when this country must undertake such measures of preparation as will tend at the earliest possible moment to give Great Britain an ample margin of air supremacy in airships and aeroplanes as against the next strongest naval Power.”

He pointed out that, though the progress with aeroplanes had not been unsatisfactory, the contrary was the case with regard to airships. He emphasized the absolute necessity for providing dirigibles, and especially harbourage for dirigibles. Lord Kinnaird, in seconding the motion, urged the importance of not allowing any new factor, such as aeronautical science, to reduce our naval strength as compared with the next strongest naval Power. He emphasized the necessity for increased expenditure in view of the great efforts being made by foreign Powers. Our chief deficiencies were, he considered, want of experience in building large types of airships and engines for aircraft.

Sir E. Beauchamp, M.P., Chairman of Lloyds, laid stress on the grave menace to our battleships and dockyards from foreign aircraft. Lord Desborough pointed out that Germany had voluntarily subscribed £360,000 for equipping an air fleet, and thought that similar efforts should be made in this country to provide aeroplanes, dirigibles, stations round the coast, and to encourage schools of flying. Mr. Stanley Machin (Vice-President of the London Chamber of Commerce) proposed the formation of a National Aeronautical Defence Association to arouse and educate public opinion on questions affecting the aerial defence of the country. One of the chief duties of this Association should be to remove questions of national defence from the arena of party politics. The motion was agreed to.

A draft constitution for the Association has since been proposed by the Aerial Defence Committee of the Navy League. The Lord Mayor will act as Chairman and the Headquarters of the Association will be in London.

PROSECUTION UNDER AERIAL NAVIGATION ACT.—M. Brindejone des Moulinais, the Belgian airman, was prosecuted on May 15 for failing to comply with the new Aerial Navigation Regulations. The defendant had flown from Bremen to Hendon, alighting *en route* at Brussels and Calais. On crossing to England he passed over Dover, which is a prohibited area (see map in JOURNAL for May, page 703), the magazines at Purfleet and the arsenal at Woolwich. No notice had been given to the Home Office of his intention to fly to this country, and he did not land in any of the prescribed areas. The defendant, who pleaded ignorance of the law, was bound over for 1,000 francs in his own recognisances.

Extracts from the Report on Accidents to Monoplanes.

A committee, composed as follows, was constituted in October, 1912, to report to the Secretary of State for War on the causes of the fatal accidents which occurred in September, 1912, to Captain Hamilton, with Lieutenant Wyness-Stuart as observer, at Graveley, near Hitchin, and to Lieutenant Hotchkiss, with Lieutenant Bettington as observer, at Wolvercote, near Oxford, and to recommend what steps, if any, should be taken, to minimize the risk of flying this class of aeroplane:—

Chairman : Dr. R. T. Glazebrook, C.B., F.R.S.

Members : A. E. Berriman, Esq., Major H. R. M. Brooke-Popham, Lieutenant Spenser D. A. Grey, R.N., Brig.-General D. Henderson, C.B., D.S.O., F. W. Lanchester, Esq., M.Inst.C.E., Mervyn O'Gorman, Esq., Professor J. E. Petavel, F.R.S., Major F. H. Sykes. The report of the committee was published as a Parliamentary Paper [Cd. 6506.]

With regard to the three cases specially investigated, however, they are of opinion that it has been clearly demonstrated that these accidents were not primarily due to causes dependent on the fact that the machines were monoplanes.

30. The breakage of any part of an engine on an aeroplane in flight is clearly fraught with great danger to the flier. In the present instance examination into the cause of breakage has led to valuable information. The Committee are of opinion that it is desirable systematic investigation should be made into all cases of engine breakage on aeroplanes of the Royal Flying Corps, and reports prepared. They recommend that copies of these reports should be presented to the Advisory Committee for Aeronautics, who should direct, when they considered it desirable, that a complete examination into the cause of failure should be carried out at the National Physical Laboratory.

It would be necessary, of course, in such cases, that the broken specimens should be carefully preserved and identified.

31. The Committee also recommend that arrangements should be made for the periodical inspection of all engines in use on aeroplanes.

32. *Engine Mountings*.—The evidence laid before the Committee has also led them to the conclusion that careful attention should be given to the question of the mounting of the engine. Insufficient strength and rigidity may easily have serious consequences in the event of any want of balance in the engine or propeller, or of sudden arrest of the rotation of the engine. The method of support, and of securing the engine to the

framework, demand serious consideration, especially in the case of the heavier Gnome engines.

The representative of the Gnome Engine Company expressed the opinion that the 100 h.p. engine should not be mounted without a front bearing arranged to take a full share of the weight, and the company in their replies confirm this statement. A copy of the company's catalogue was submitted in which the engine is shown supported between two bearings. The mounting provided for the engine is designed and constructed by the aeroplane builder, and firms manufacturing aeroplanes should give the matter attention. In the case of the Deperdussin machine, the representative of the Deperdussin Company agreed to the statement that the front bearing is not intended to take any serious part of the weight of the engine in flight, and in reply to the question, "The 50 h.p. usually has two bearings and the 100 h.p. three?" he said, "But you cannot call the front one a bearing, because it has only to take the shock on landing." This answer, which it will be seen is not in agreement with the view taken by the Gnome Company, is confirmed by the Deperdussin Company in a subsequent letter. The question is of great importance, and the Committee consider that existing machines, whether monoplanes or biplanes, should be carefully examined to ensure that the mounting of the engine is satisfactory.

It is important that means should be taken to ensure that in the event of small breakages in the engine, it should not be possible for parts which may become loose to swing out far enough to do damage to the cowl, or other neighbouring parts of the machine. More generally, it is desirable that the neighbourhood of the engine should be kept as clear as possible from essential members of the main structure, injury to which may involve the destruction of the aeroplane.

34. *Strength and Details of Construction.*—Considerable attention has been given to the consideration of the relative structural strength of the monoplane and the biplane. It will be generally agreed that the biplane possesses certain obvious advantages. The bridge girder construction possible in its main spars and struts admits of ample strength. Neither the main wires nor the warping wires need be brought to a point so near the ground as to incur risk of damage in starting or alighting. The Committee are, however, of opinion that it is quite possible to construct a monoplane so that it shall have adequate strength. At the same time there are certain points to which they desire to call attention: some of these are common to both types of machine. The wing skeleton should be so designed as a complete structure with diagonal members that it will stand up against the drift forces and will not fail after rupture of a drift cable. This has been done in some, but not all existing types of machine. The main wires should not in either the monoplane or biplane be anchored to a part which is severely stressed every time the machine alights. Both the main wires and the warping wires should be secured in such a way as to minimize the risk of accidental damage. As already pointed out, this is more easily secured in the biplane. The control wires should be stranded. In the construction of future machines, it is advisable that main wires, and their attachments, should be duplicated. Certain of the machines inspected at Larkhill were not free from criticism in respect of some of the matters here mentioned.

35. By request of the Committee, a calculation has been undertaken at the National Physical Laboratory of the stresses in the main spars

of the wing for typical Deperdussin and Bristol machines. The factor of safety found is lower than that given by the manufacturers, the difference depending chiefly on the figure assumed for the strength of the material used. The Committee recommend that with every machine purchased, stress diagrams or calculations should be required, which should be carefully checked. They would suggest that the Advisory Committee for Aeronautics be asked to report on the best method of carrying out these calculations.

36. The use of a quick release is one of the details of construction to which the attention of the Committee has been called. In their opinion, such devices require most careful consideration and testing before their use is permitted.

37. In tightening up the wires of an aeroplane, it appears possible that a strain considerably greater than is desirable may be put on some of the wires. Care should be taken to avoid this, and the use of some simple form of tautness indicator, such as that employed at the Royal Aircraft Factory, is recommended as an aid to the training of skilled mechanics.

39. Attention is called to the fact that the maximum air pressure in normal flight may be three or four times the mean loading, a fact not always recognized; this follows from the figures obtained for the pressure distribution both by Eiffel and at the National Physical Laboratory.

41. The Committee desire to call attention to the necessity of fixing down the fabric, especially the upper fabric, to the ribs more securely than is perhaps usual, and to the possibility that a satisfactory method might be found of preventing a tear from spreading.

42. *Inspection during Manufacture.*—With a view to securing that in new machines effect is given to the recommendations of the Committee as to construction and strength, a system of inspection of machines under manufacture similar to that generally adopted in the Services should be enforced.

43. *Stability.*—The Committee desire to urge the importance of the general investigation into the stability of aeroplanes, whether monoplanes or biplanes. The experimental data at present available are not sufficient to allow a complete theory to be formulated. It is understood, however, that the work of the Advisory Committee has now been carried to the stage at which this problem can be attacked with hope of success, provided that the necessary facilities—a large wind channel in a sufficiently big enclosed space—be put at their disposal, and the Committee recommend that the Advisory Committee be asked to continue the further investigation into the stability of the aeroplane as a matter of great urgency, and more especially to examine the question of inherent lateral stability, suggestions towards the solution of which have been given by the experiments of Lanchester and the calculations of Bryan.

44. As regards the present enquiry, the Committee have no information before them which would lead them to conclude that the monoplane as such is less stable than the biplane. Evidence given by a number of fliers, the majority of whom were, however, more accustomed to monoplanes, showed a preference for the high speed machine, as being less disturbed by gusts in high winds, and as responding to smaller movements of the controls. This greater ease of control involves less fatigue to the

flier, an important consideration in a long flight. It is, however, distinct from stability.

45. To one special point the Committee desire to call attention. It is, unfortunately, a somewhat common practice for fliers to descend intentionally in a *vol piqué*. Owing to the serious nature of the stresses induced, the Committee are of opinion that this involves an unnecessary risk, and recommend that fliers be cautioned as to the danger of the manœuvre.

Further, there are certain considerations that point to the desirability of an investigation into the special conditions attending this attitude in flight, and the Committee recommend that the Advisory Committee be asked specially to examine the questions of *vol piqué* flight and recovery therefrom.

46. *Gyroscopic Effect of Rotating Engine and Propeller.*—Calculations and experiments have been made at the Royal Aircraft Factory to determine the amount of the gyroscopic action of the rotating engine (100 h.p. Gnome) and propeller. The engine is assumed to be running at 1,200 revolutions. The amount of the gyroscopic effect depends also, of course, on the rate at which the machine is being turned. In the calculation made it is supposed that this is such that a complete circle would be described in 20 seconds. Consideration of the maximum rate probable in a sudden dip leads to a nearly equal result. The moment due to this cause is then of the order of magnitude of that which would be produced by a force of 20 lbs. acting on the horizontal or the vertical rudder.

47. The couple due to gyroscopic action will have an effect as regards (a) increase of stress, (b) steering. There is no reason to anticipate serious consequences on either ground. There is no difficulty in taking up additional stress of the amount indicated. Probably the most important consequences would arise in the event of any insecurity in the mounting of the engine. This is a further reason for attention to this matter. In its relation to steering, the effect may be compared with that of a small gust, of known direction, and should cause no difficulty to the flier.

48. *Testing and Inspection of Machines.*—The Committee desire to lay stress on the importance of the careful testing, and periodical inspection, of machines. No machine should be taken into use until after thorough examination and approved test.

51. The Committee are agreed that it is desirable arrangements should be made for the regular inspection of machines and of their engines. For this purpose it is desirable that a sufficient number of permanent officials should be appointed:—

- a. To inspect and report on the machines at regular intervals to the officer directing the work in the air.
- b. To examine and report on every accident and repair.

52. The Committee are of opinion that the condition of the engines is of such paramount importance to the safety of the pilots and observers in aeroplanes, and the engines, in the present state of development of the aircraft industry, are so various in design, requiring careful and frequent inspection, as to justify the appointment of an engineer of extensive technical experience as an Inspector of Engines, with the rank of an officer in the Military Wing of the Royal Flying Corps.

53. The Committee feel also that the lives of those who fly aeroplanes depend to an important degree on the skilful and conscientious manner in which the mechanics of the Royal Flying Corps carry out their work of examination and adjustment of the various parts of an aeroplane, and they wish to bring to the notice of the Lords Commissioners of the Admiralty and the Army Council the importance of ensuring that as large a number as possible of the mechanics of the Royal Flying Corps are adequately trained without delay to perform their duties in an efficient manner.

The Committee realize that the organization of the Royal Flying Corps, when matured, will render possible the training of the requisite numbers, but they suggest that, during the present stage of its development, to supplement the training establishment of the Royal Flying Corps, two or three skilled mechanics for each squadron should be specially engaged for a time to act as instructors, and to set a standard of technical workmanship, while advantage should be taken of the facilities afforded by private firms, both at home and abroad, for teaching men in their workshops.

54. *Chief Conclusions and Recommendations.*—The main conclusions arrived at by the Committee and their recommendations in connection therewith may be briefly summarized:—

- i. The accidents to monoplanes specially investigated were not due to causes dependent on the class of machine to which they occurred, nor to conditions singular to the monoplane as such.
- ii. After consideration of general questions affecting the relative security of monoplanes and biplanes, the Committee have found no reason to recommend the prohibition of the use of monoplanes, provided that certain precautions are taken, some of which are applicable to both classes of aeroplane.
- iii. The wings of aeroplanes can, and should, be so designed as to have sufficient strength to resist drift without external bracing.
- iv. The main wires should not be brought to parts of the machine always liable to be severely strained on landing.
- v. Main wires and warping wires should be so secured as to minimize the risk of damage in getting off the ground, and should be protected from accidental injury.
- vi. Main wires and their attachments should be duplicated. The use of a tautness indicator, to avoid over-straining the wires in "tuning up," is recommended. Quick-release devices should be carefully considered and tested before their use is permitted.
- vii. In view of the grave consequences which may follow fracture of any part of the engine, especially in the case of a rotating engine, means should be taken to secure that a slight damage to the engine will not wreck the machine. Structural parts, the breakage of which may involve total collapse of the aeroplane, should, so far as possible, be kept clear of the engine.
- viii. The fabric, more especially in highly loaded machines, should be more securely fastened to the ribs. Devices which will have the effect of preventing tears from spreading should be considered. Makers should be advised that the top surface alone should be capable of supporting the full load.
- ix. The makers should be required to furnish satisfactory evidence as to the strength of construction and the factor of safety

allowed. In this, special attention should be paid to the manner in which the engine is secured to the frame.

x. Engine breakages should be systematically investigated and reported on, and the reports should be submitted to the Advisory Committee for Aeronautics.

xii. No machine should be taken into use until after examination and approved test, and all machines should be regularly inspected, especially after any serious damage or repair. Parts of machines in course of construction should be inspected and passed before being assembled.

xiii. Two or three skilled mechanics for each squadron should be specially engaged for a time to act as instructors and to set a standard of technical workmanship.

xiv. In case of any serious accident, care should be taken to preserve and identify damaged portions of the machine which may help to account for the cause. It is desirable to obtain the assistance of the police authorities in this matter.

55. With regard to the machines already in use at Larkhill, the Committee recommend that they be carefully inspected by a skilled engineer, and, if necessary, modified so as to bring them as far as possible within the recommendations of this report, regard being had particularly to the points dealt with in clauses 20 and 32.

56. The Committee also desire to recommend that the following questions be specially referred to the Advisory Committee for Aeronautics for further investigation and report.

a. The general question of the stability of aeroplanes.

b. Detailed investigation of the strains and stresses in aeroplane wings, especially monoplane wings. Tests on the strength of wooden struts and beams as used in aeroplane work.

c. Aerodynamic investigation of aeroplane wings designed to have sufficient strength without external bracing.

d. Investigation into the strength of aeroplane fabrics, wounded and unwounded; and into the effect of the application of dopes and of exposure.

e. Investigation of engine breakages.

f. The methods of testing a complete machine and the test conditions to be fulfilled.

g. Investigation into the conditions of the *vol pique* in respect to monoplanes and biplanes.

ARGENTINA.

The Nieuport 100 h.p. monoplane, presented to the Army by the firm of Piccardo & Co., has arrived at the Aviation School.

The inhabitants of Azul, a small township in the province of Buenos Aires, have decided to present an aeroplane to the engineer battalion quartered there.

CHILE.

A sum of £52,500 has been voted for the establishment of a school of military aviation to be located at Lo Espaço, near Santiago, instead of at El Culenar.

FRANCE.

AEROPLANES.—In 1912 the Government bought 274 aeroplanes and 12 aeroplanes were presented to the Army by different persons. On January 1, 1912, the number of Army aeroplanes was 208, which, with 286 acquired during the year, gives a total of 494. Of this 494 there remained on February 1, 1913, 399 aeroplanes, of which 29 were noted as being of no further use. This gives a wastage of 124 *avions* for the year, *viz.*, 25 per cent. The number of aeroplanes to be bought this year (1913) is expected to be 443. At the end of 1913 the French Army should, therefore, possess 813 aeroplanes, less 25 per cent. (wastage) = 610.

In addition to complete aeroplanes it is intended to purchase 230 spare aeroplane engines.

No definite type of hangar has yet been decided on.

EXPENDITURE.—The Budget for 1913 provides for £824,720 to be spent on aerostation in addition to £938,000 on aviation. The total Army air bill is to be £1,762,720.

AVIATION IN MAROCO.—Most of the French columns in the field appear to be accompanied by aviators, who frequently work from the fortified posts on the lines of communication. On April 26 an aviator had to descend at about four kilometres from Nekhila owing to a failure of his motor, and was only rescued from the hostile tribesmen by a squadron of spahis who happened to see him descend. Aeroplanes work between Colonel Mangin's column and El Boroudj; one of them visited the column during the combat of April 26. During May aviators from General Alix's column at Kasbah M'soum reconnoitred Taza, and others from Colonel Mangin's column made numerous reconnaissances over the Atlas.

NAVAL AERONAUTICS.—The naval programme includes the provision of four airship stations of three dirigibles each, and five aviation stations of five aeroplanes each. The whole cost, which is to be spread over four years, will be £1,200,000.

The Minister of Marine has offered a prize of £2,000 for hydro-aeroplanes to be competed for in August next at Deauville.

JAPAN.

AEROPLANE ACCIDENT.—An aeroplane accident at Tokorozawa resulted in the death of two military officers. The immediate cause of the accident was the collapse of one of the wings of the machine, a Blériot monoplane, due apparently to a strong gust of wind.

RUSSIA.

FLYING PAY.—An Army Order has been published bringing into effect the additional rates of pay for officers of flying units. The rates are:—

For Aeroplane Work.—Officers, £21 a month; N.C.O.'s, £8 a month.

This pay can only be drawn for six months in each year, and for each month it is drawn an officer or man must have spent six hours in the air.

For Work with Dirigibles.—Commander, £16 a month; assistants and senior mechanics, £9 10s. a month; junior mechanics, £6 7s. 6d. a month; rank and file, £3 4s. a month.

The above rates of pay can only be drawn for four months in each year, and for each month it is drawn six hours must be spent in the air. Other men employed in dirigibles (e.g., telegraphists and machine-gun men) receive one rouble (about 2s.) for every day's flying.

COLLECTION FOR AIR FLEET.—A collection for the air fleet organized on May 1 in St. Petersburg by the All-Russia Aero Club produced over £1,700. A Farman hydroplane and Farman aeroplane will be purchased with the sum thus collected.

RUSSIAN RECORDS.—Gaber-Vlinski, an instructor at the Moscow military aviation school, recently broke the Russian height record by reaching 9,200 feet, and the Russian record for duration of flight by remaining in the air three and a half hours.

EQUIPMENT OF AIR COMPANIES.—Some Nieuport monoplanes delivered on May 18 were reported in the press to be intended for the 1st Air Company (Brest-Litovski).

THE WAR IN THE BALKAN PENINSULA.

Events in May, 1913.¹

SURRENDER OF SCUTARI.—On May 14 at 2 p.m. the fortress of Scutari was formally handed over by the Montenegrins to an international force consisting of 300 British, 200 French, 100 Germans, 200 Austrians, and 200 Italians, the whole under Vice-Admiral Burney.

PEACE NEGOTIATIONS.—The relations between the Allies continued strained during May. Several collisions between Greek and Bulgarian troops occurred near Salonika, notably at Vultsista and Kotsaki. Greek ships cruised off Kavalla and are said to have been fired on by Bulgarian artillery. Meanwhile Servia peremptorily demanded a revision of the original partition treaty. Finally, on May 27, Sir E. Grey informed the Balkan delegates that the Powers would not tolerate any further delay in the conclusion of peace. This step, which was warmly approved by most of the Continental Press, had the desired effect, and the peace Treaty was signed at St. James' Palace just after noon on May 30.

The Short Official Despatch of the Crown Prince (now King) of Greece, on the Capture of Janina.

To H.M. The King and to the Minister of War.

Janina, March 1, 1913.

"The fort of Janina forms a large fortified camp, about 30 miles in circumference. It is bounded by a succession of steep heights which are strong by nature; on these have been sited groups of batteries and infantry entrenchments blocking all the roads leading into Janina, and mutually supporting each other. Next to Bizani, the strongest fort is that situated East of the lake of Janina, on the route leading up to Sergiana. Out of the 102 guns possessed by the fortress of Janina, 70 were mounted on these two fronts; of these 50 were in the Bizani batteries. Extensive

¹ *Questions Diplomatiques et Coloniales.*

entrenchments and wire entanglements added to the strength of the fortifications.

" The attack of January 7-20 had brought our Army quite close to the South front, and even, in places, to the East front. At certain points our outposts had advanced to within 300 yards of the wire entanglements.

" The enemy, therefore, still further reinforced his main positions, on which he now concentrated the whole of his attention.

" On January 10-23 I assumed the command of the Army of Epirus. Up to February 23 the operations were limited on both sides to skirmishing and to unimportant artillery duels; this period was utilized for planning a general attack on the forts and for making the numerous preparations required for such an operation.

" Careful examination of the prospects of an attack against the South and East fronts (Bizani—Kastritsa) led to the conclusion that these positions were by no means impregnable, but that to take them by assault would require great sacrifices. I decided, therefore, to make a surprise attack against the West front which, though naturally as strong, was less carefully guarded. An attack of this kind, in addition to offering great chances of breaking through the enemy's line of defence, promised the advantage of bringing my Army straight on to the town of Janina, and consequently of enabling me to surround the Bizani position or even to attack it in reverse, where it is not fortified; for Bizani is not a detached fort, but an entrenched front, nearly all the works and batteries of which are on the South and East slopes facing South and East. I considered that a simultaneous attack from the South and from the North would render Bizani untenable, and would involve the complete destruction of its defenders, while the interruption of communications with Janina would then be sufficient to reduce the enemy by famine within a very short time.

" For a surprise attack to succeed, I considered it necessary:—

" 1. To persuade the enemy that the main attack would be made on the East front; with this object, and in spite of all the difficulties of the ground, I reinforced my right wing with siege and field artillery, and ordered the mixed brigade to advance from Metzovo and occupy Driskos.

" 2. To concentrate large forces on my left, without allowing the enemy to learn what I was doing. With this object I abstained from moving any of the advanced units which were in contact with the enemy; but I formed reserves in each division which, partly by night marches, and partly by taking advantage of natural cover, were transferred secretly to my left flank.

" 3. To form at Emin Aga a large dépôt of provisions, ammunition of all kinds, ambulances and transport animals. This was necessary in order that the troops marching to the left flank to form the attacking columns, should be supplied with everything they required.

" 4. To immobilize the enemy's troops which were outside Janina, and to prevent them from coming to the aid of the fortress on the day of the general attack, and at the same time to give the garrison the impression that the day in question was still far distant. With this object I ordered a feigned attempt at landing to be made at Santi Quaranta, and I disseminated rumours that this landing was being undertaken by a whole division; this ruse not only occupied the forces of the enemy in the district of Delvinon, but was successful in detaching other hostile forces from

Janina. I also ordered the 3rd Division from Korydja as well as a portion of the 5th Division from Fourka to advance. This movement was devised so that the enemy, believing that I was awaiting the arrival of the forces coming from the North before commencing a general attack, calculated that the attack could not take place before another eight days, whereas in reality it was to be carried out in two or three days.

"All these preparatory movements were carried out with the greatest secrecy and with exemplary order and regularity, in spite of the snow storms which took place at this time, and the hilly nature of the ground. In this way I succeeded in concentrating on my left flank, between March 2 and the evening of March 4, 23 battalions of infantry and six batteries of mountain artillery under the command of Brig.-General Moschopolos. The first two columns were concentrated in the defile of Manoliassa, and the third—that on the extreme left—moved round the South-East of the Olitzika mountain, in order to concentrate at Pliassa.

"While this movement was being executed, I ordered a heavy bombardment of the South and East fronts of the Turkish positions to be commenced by all my batteries, in order to occupy the attention of the enemy, and to prevent him from getting any idea of what was happening; and I combined with this bombardment the fire of infantry, with a view to making the enemy deploy, so as to cause him the greatest possible loss. (In fact, as was learned later on, the 15,000 shells fired on that day against Bizani, caused the Turks considerable losses). At the same time the mixed brigade received orders to attack and occupy Driskos and Kontovraki.

"The artillery bombardment was kept up—though not quite so heavily—during the whole night in order to tire out the enemy. On the morrow, March 5, a general attack was ordered. Our right wing was to engage the enemy by slowly advancing against his East front; our centre was to occupy his attention by fire action; and our left was to carry out the surprise attack and force the West front. Meanwhile the artillery was to keep up as fierce a bombardment as possible. All these orders were carried out to the letter. At 7 a.m. the left column took the entrenchments and the battery of four guns on the Tsouka hill by a surprise attack. A little later, another portion of this column captured the batteries and entrenchments of St. Nicholas after desperate fighting; while a third portion captured the batteries of Fort Dourouti. At the same time the right column dislodged the enemy from the heights of Manoliassa. About 3 p.m. dense columns of the enemy were seen descending from all the heights on the left front towards the plain of Janina, pursued by our troops sword in hand. An attempt by the Turkish troops to rally near Rapista was frustrated by the firing of our mountain artillery, which dispersed them with heavy losses and forced them to fly in disorder towards Janina. In this way, the whole left front of the enemy, from Sadovista to St. Nicholas, with the 20 guns that were protecting it, fell into our hands. Between 3 p.m. and 5 p.m. portions of our three columns descended into the plain in pursuit of the enemy, while others were moved North towards the Sadovista fortifications. A little before nightfall our Evzones reached a point 500 yards from Janina, and cut the telephone communications between that city and Bizani, thus rendering any communications between these two positions completely impossible. Behib Bey, the governor of the fort, was only able, according to his own statement, to return to Janina by boat across the lake.

" My orders for the next day, the 6th, prescribed a continuation of the attack against the North-West slopes of Bizani and the occupation of its defensive works from the rear.

" The Commander-in-Chief of the Turkish Army, seeing that the position was desperate, and that all further resistance was useless, sent me plenipotentiaries proposing the unconditional surrender of the fort and of his Army. Thereupon at 5 a.m., March 6, I ordered a cessation of the artillery fire which had continued all night. The surrender of the Turks commenced at dawn; the official minutes of the capitulation were signed at 2 p.m. on March 6."

NOTICES OF BOOKS.

Deutsche und Englische Taktik (German and British Tactics). By Colonel von Estorff. 93 pp. Berlin, 1912. Mittler.

In his preface the author states that his object is to bring out the differences in German and English tactics, by comparing the methods adopted by the latter in the South African War with the regulations now in force in the two armies.

For this purpose he gives a brief epitome, based on the English Official History, of the actions at Talana Hill, Elandslaagte and Lombard's Kop, and of the various efforts made by Buller to relieve Ladysmith. Whilst much of this must necessarily be unpleasant reading to Englishmen, forming as it does a record of neglected opportunities, the account is scrupulously fair, and does full justice to the fighting qualities of the British soldier. He ascribes the neglect of reconnaissance and proper protection, which preceded the surprise at Dundee, to the British habit of regarding war as a species of sport and not as a struggle for existence. He also draws attention to the different method of dividing the cavalry, the English having three separate bodies, whereas the Germans have only two, the "Army Cavalry" and the "Divisional Cavalry." (Our new F.S.R. contemplate more elasticity in the arrangement of cavalry and, as the German Divisional Cavalry [four squadrons per Division] is strong enough to perform both protective and divisional duties, the difference is more apparent than real). He also draws attention to the German instructions to drive the enemy's cavalry off the field and to obtain a moral superiority from the start, for which purpose even patrols are directed to attack similar hostile bodies on every favourable occasion. He quotes an officer with the Boers to prove that a patrol of from 10-12 sabres (F.S.R. 91, (3)) is too weak, and considers that our Regulations generally do not sufficiently inculcate the "offensive spirit" into our cavalry, whilst as for mounted infantry, they have no place in European warfare.

He attributes the failure at Lombard's Kop to want of proper information as to the enemy's position, but considers that White's plan, including Carleton's detachment to Nicholson's Nek, was based on correct principles. Some of the criticisms of Grimwood's night advance are to the point, though we do not share his astonishment that no cavalry should have been detailed to the column.

It is encouraging to hear that "the English army has now attained a high standard of efficiency in night operations."

The author, himself an infantryman, devotes considerable space to various attack formations, and is not in favour of wide extensions or an advance in waves as tending to place too few rifles into the firing line and to mix up units. Also, as he somewhat aptly observes, it is difficult to keep German infantry extended. He considers that our company is far too small for Continental warfare, though possibly suitable to our Colonial needs, but that equally the German company is too big. He thinks that it is a product of our voluntary system, which he proceeds to discuss in the light of some of Sir Ian Hamilton's pro-compulsion utterances, and holds that South Africa proved the voluntary system to be quite unequal to an extended campaign. His opinion of the British officer and man is not uninteresting.

"The officers of the British Army all belong to the best classes. One seldom sees amongst them any but men of tall, wiry build. They are characterized by a high sense of honour, are keen and full of common-sense. Professionally, however, they are not on a high plane. The capabilities of the rank and file, as regards duties requiring qualities of mind rather than of body, bear no comparison to their length of service."

British failures on the Tugela are ascribed to a want of determination on the part of the commander, who, on any repulse to a portion of his force, incontinently accepted defeat for the whole, and the writer considers that had the Boers been pinned along their entire front, their position could have been pierced almost anywhere. The manner in which retirements were effected is favourably noticed, this being a manœuvre in which the author considers that the German army is insufficiently trained. He sums up by saying that the campaign in Natal demonstrated the conspicuous bravery of the British troops, their indifferent training, and, with certain exceptions, their even more indifferent leading.

He praises our Field Service Regulations as striking a just balance between the policy of "avoiding losses," which prevailed after the South African War, and the swing of the pendulum in the opposite direction after Manchuria; but, however excellent its training, he considers the British Army to be a negligible factor on the Continent owing to its poverty of numbers.

The book contains copious references to British and German Regulations and Manuals, and the criticisms, coming as they do from a fair and impartial observer, though not original, are not devoid of interest. The book is, however, somewhat disappointing as it does not touch any of the larger questions on which English and German ideas of the present day are at variance, and to which its title might have led one to expect some reference.—W.M.ST.G.K.

FOREIGN PERIODICALS.

NAVAL.

AUSTRIA-HUNGARY.

MITTEILUNGEN AUS DEM GEBIETE DES SEEWESENS. Pola: No. 5, May, 1913.—The Marconi system in recent years. The British Naval Budget, 1913-14. Petroleum as a motive power for ships. The powder question in

France. Italian naval problems. The Chinese training cruiser, "Tchao Ho." **No. 6, June, 1913.**—Peace blockade and its position in literature. The report on the Italian Naval Estimates, 1913-14. German battleships of the Kaiser class. Line of shafting in ship's engines.

FRANCE.

LE YACHT. Paris: **May 3rd, 1913.**—Phonetic signals for submarines. Turrets for three or four guns.

MONITEUR DE LA FLOTTE. Paris: **May 3rd, 1913.**—Submarine mines. Coast defence. **May 10th.**—The distribution of our squadrons. Naval projects for 1914. **May 17th.**—The Navy in Parliament. **May 24th.**—The new naval organization law in the French Navy. The Navy in Parliament. **May 31st.**—The new organization law in the French Navy. Naval manoeuvres.

LA VIE MARITIME. Paris: **May 10th, 1913.**—Opium in the Navy. Our naval yards. Battle cruisers and scouts. **May 25th.**—Naval manoeuvres. Engineers in the mercantile marine.

REVUE MARITIME. Paris: **March, 1913.**—Observations on the military spirit.† Contraband of war and the Declaration of London.† The voyage of the "Solide" round the world. **April, 1913.**—The same articles continued, and: Spain as a sea power.

GERMANY.

MARINE RUNDSCHAU. Berlin: **May, 1913.**—Moltke.‡ The influence of warlike spirit in the further development of naval tactics. Progress in naval hygiene during the last century. The position of Lübeck in the competition between German ports. The British Naval Budget, 1913-14.

MILITARY.

AUSTRIA-HUNGARY.

KAVALLERISTISCHE MONATSHEFTE. Vienna: **May, 1913.**—Haynau (May 26, 1813). The Russian cavalry at the time of the Wars of Liberation. The West Prussia Ulanen Regiment No. 1, and the cavalry action at Wysokow: a reply (to a criticism by General v. Sigbert). The equitation manual of the Russian cavalry. The latest French Cavalry Training (Provisional, May, 1912). On the employment of cavalry in the plains of Upper Italy. Landwehr cavalry machine-gun sections. Light cavalry and the lance. Crib-biting. Fodder-substitutes.

STREFFLEUR'S MILITÄRISCHE ZEITSCHRIFT. Vienna: **May, 1913.**—Benedek and his headquarters in the campaign of 1866. The events in Libya after the Peace of Lausanne. Organization of the Greek Army. Progress in foreign Armies: Russia. Experiments with explosives. German naval aeronautics.

DANZER'S ARMEE ZEITUNG. Vienna: **No. 18, May 1, 1913.**—Fortresses in recent wars. **No. 19.**—The officer's field equipment. **No. 20.**—Bautzen (May, 1813). The necessity for reorganizing the officers' corps of quartermasters. **No. 21.**—The present distribution of the Turkish Army and the position in Constantinople. **No. 22.**—A note on recent events in the French Army. A word in defence of our machine-guns.

*—to be continued.

†—continued.

‡—concluded.

FRANCE.

REVUE MILITAIRE DES ARMÉES ÉTRANGÈRES. Paris: May, 1913.—The Japanese Imperial Manœuvres, 1912. The new Russian recruiting law. The Italian "Unione Militare" (an Army and Navy Co-operative Society).

JOURNAL DES SCIENCES MILITAIRES. Paris: May 1, 1913.—The preliminaries to the disasters of Turkey. Sketch of the campaign in Thrace. § A study of the consequences of the reorganization of the cavalry.* The exercise of command.* Germany's method of preparing for war (1806-1913). May 15.—Infantry field equipment.* A study of the consequences of reorganization of the cavalry.* The exercise of command.* Sudden attacks. The reorganization of our Army.

REVUE D'HISTOIRE. Paris: May, 1913.—Studies on advanced guards.* The military work of the Revolution.† The campaign of 1794 in the Netherlands.* The Peninsular War, 1807-13.* The War of 1870-71 (operations in the West).* Memorandum on cavalry and light troops in the early days of the Consulate (a contemporary document by Captain Quentin).*

REVUE MILITAIRE GÉNÉRALE. Paris: May, 1913.—Not yet received.

LE SPECTEUR MILITAIRE. Paris: May 1, 1913.—The 19th Rifles.§ Recruitment of natives of Algeria.* General Malet.* Rosbach, Jéna, Waterloo.* May 15.—Recruitment of natives of Algeria.* General Malet.* Organization of Alpine militia. Rosbach, Jéna, Waterloo.†

REVUE DE CAVALERIE. Paris: April, 1913.—The point (recovery of the sabre of Lieutenant Roze, killed in action by the Beni-Snassen). Initiative. German cavalry at the Imperial Manœuvres, 1912. Cavalry actions.† A note on Colonel de Grandmaison's lectures.* Random notes (on cavalry matters).

GERMANY.

MILITÄR WOCHENBLATT. Berlin: No. 55.—The 60 years' jubilee of F. M. Count Gottlieb von Haeseler's military service. The infantry half-section. The Balkan War.† The United States Army at the end of 1912.† No. 56.—Strength of the Army, 1913. The first Turkish offensive after the armistice, February 8-10, 1913. Grossgörschen. A non-flashing powder. No. 57 (May 1), 1913.—Calendar for May, 1813 (continued in Nos. 62, 65, 69, and 71). Grossgörschen.§ Machine-guns in the encounter battle. Training of the Reserve, 1913. No. 58.—The rising of Prussia in 1813 from a modern point of view: its lessons for officers (concluded in No. 59). French views on operations by night. The Balkan War (concluded in No. 59). No. 59.—Artillery reconnaissance. No. 60.—Field artillery horses. Notes on the French Army (continued in Nos. 61 and 68). Epidemics in the field, and how to combat them in the theatre of operations (concluded in No. 61). No. 61.—The cavalry action at Aarhuus, May 31, 1849. No. 62.—Dutch coast defence ordnance. Aviation in Russia. Cavalry armament: a proposal. No. 63.—Russian views on cavalry organization. The English Army Estimates, 1913-14 (concluded in No. 64). Bautzen (continued in No. 64 and concluded in No. 65). Our officers of the reserve (concluded in No. 65). No. 64.—Weissenburg and Wörth (notice of a book by Captain Giehrl). No. 65.—Italy in Libya. Nos. 66-67.—In the days of the great King (notice of a biography of General von Winterfeldt, Frederick the Great's Chief of the Staff). The aeronautical strength of Norway.

*—to be continued.

†—continued.

§—concluded.

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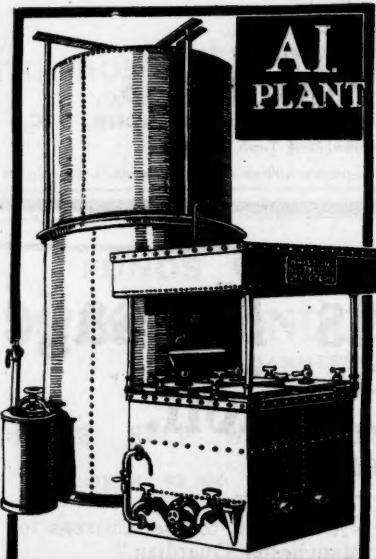
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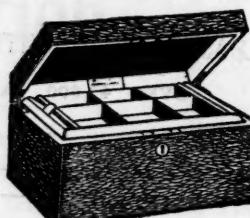
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